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## Certifications

**WBENC:** 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657  
**NCTRCA** WFWB38444Y0909

## NELAP Certifications

**Lubbock:** T104704219-08-TX **El Paso:** T104704221-08-TX **Midland:** T104704392-08-TX  
LELAP-02003 LELAP-02002  
Kansas E-10317

## Analytical and Quality Control Report

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Report Date: September 11, 2009

Work Order: 9082815



Project Name: HELSTF Chromate Spill Groundwater

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
208427	HLSF-0143-HMW-037-0809	water	2009-08-26	09:55	2009-08-27

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 79 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

### Notes:

*For inorganic analyses, the term MQL should actually read PQL.*

### Standard Flags

- U** - Not detected. The analyte is not detected above the SDL.
- J** - Estimated. The analyte is positively identified and the value is approximated between the SDL and MQL.
- B** - The sample contains less than ten times the concentration found in the method blank.
- JB** - The analyte is positively identified and the value is approximated between the SDL and MQL.  
The sample contains less than ten times the concentration found in the method blank.  
The result should be considered non-detect to the SDL.



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Dr. Blair Leftwich, Director  
Dr. Michael Abel, Project Manager

## Case Narrative

Samples for project HELSTF Chromate Spill Groundwater were received by TraceAnalysis, Inc. on 2009-08-27 and assigned to work order 9082815. Samples for work order 9082815 were received intact without headspace and at a temperature of 12.0 deg. C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Ag, Total	S 6010B	53951	2009-09-03 at 08:16	63221	2009-09-03 at 10:42
Alkalinity	SM 2320B	54095	2009-09-08 at 11:00	63379	2009-09-08 at 11:00
Al, Total	S 6010B	53951	2009-09-03 at 08:16	63221	2009-09-03 at 10:42
Ammonia	SM 4500-NH3 B,C	53864	2009-08-31 at 10:45	63111	2009-08-31 at 16:00
As, Total	S 6010B	53951	2009-09-03 at 08:16	63221	2009-09-03 at 10:42
Ba, Total	S 6010B	53951	2009-09-03 at 08:16	63221	2009-09-03 at 10:42
Be, Total	S 6010B	53951	2009-09-03 at 08:16	63221	2009-09-03 at 10:42
Bromide (IC)	E 300.0	53984	2009-08-31 at 13:04	63249	2009-08-31 at 20:24
Ca, Total	S 6010B	53951	2009-09-03 at 08:16	63355	2009-09-09 at 08:18
Cd, Total	S 6010B	53951	2009-09-03 at 08:16	63221	2009-09-03 at 10:42
Chloride (IC)	E 300.0	53984	2009-08-31 at 13:04	63249	2009-08-31 at 20:24
Chromium, Hexavalent	SM 3500-Cr B	53776	2009-08-27 at 09:23	63015	2009-08-27 at 09:23
Co, Total	S 6010B	53951	2009-09-03 at 08:16	63221	2009-09-03 at 10:42
Cr, Dissolved	S 6010B	54153	2009-09-11 at 08:25	63461	2009-09-11 at 11:54
Cr, Total	S 6010B	53951	2009-09-03 at 08:16	63221	2009-09-03 at 10:42
Cu, Total	S 6010B	53951	2009-09-03 at 08:16	63221	2009-09-03 at 10:42
Explosives (8330)	S 8330-C18	53897	2009-09-01 at 15:00	63142	2009-09-01 at 17:42
Fe, Total	S 6010B	53951	2009-09-03 at 08:16	63221	2009-09-03 at 10:42
Fluoride (IC)	E 300.0	53984	2009-08-31 at 13:04	63249	2009-08-31 at 20:24
Hg, Total	S 7470A	53821	2009-08-31 at 12:30	63072	2009-08-31 at 13:57
K, Total	S 6010B	53951	2009-09-03 at 08:16	63355	2009-09-09 at 08:18
Mg, Total	S 6010B	53951	2009-09-03 at 08:16	63355	2009-09-09 at 08:18
Mn, Total	S 6010B	53951	2009-09-03 at 08:16	63221	2009-09-03 at 10:42
Mo, Total	S 6010B	53951	2009-09-03 at 08:16	63221	2009-09-03 at 10:42
Na, Total	S 6010B	53951	2009-09-03 at 08:16	63355	2009-09-09 at 08:18
Ni, Total	S 6010B	53951	2009-09-03 at 08:16	63221	2009-09-03 at 10:42
Nitrate and Nitrite as N	SM 4500-NO3 E	54188	2009-09-11 at 10:24	63485	2009-09-11 at 16:25
O/G	E 1664	54129	2009-09-08 at 09:15	63411	2009-09-09 at 11:48
Pb, Total	S 6010B	53951	2009-09-03 at 08:16	63221	2009-09-03 at 10:42
pH	SM 4500-H+	53841	2009-08-27 at 13:50	63082	2009-08-27 at 13:50
P, Total	S 6010B	53951	2009-09-03 at 08:16	63221	2009-09-03 at 10:42
Sb, Total	S 6010B	53951	2009-09-03 at 08:16	63221	2009-09-03 at 10:42
Semivolatiles	S 8270C	53996	2009-09-02 at 15:00	63261	2009-09-04 at 10:45
Se, Total	S 6010B	53951	2009-09-03 at 08:16	63221	2009-09-03 at 10:42
SO4 (IC)	E 300.0	53984	2009-08-31 at 13:04	63249	2009-08-31 at 20:24
TDS	SM 2540C	54007	2009-09-01 at 15:25	63272	2009-09-01 at 15:25
TKN	E 351.3	54023	2009-09-02 at 11:00	63291	2009-09-02 at 13:30
Tl, Total	S 6010B	53951	2009-09-03 at 08:16	63221	2009-09-03 at 10:42
TOC	SM 5310C	54065	2009-09-08 at 13:26	63340	2009-09-08 at 13:29
Total Cyanide	SM 4500-CN C,E	53840	2009-08-31 at 10:15	63080	2009-08-31 at 15:15
TPH DRO	Mod. 8015B	53812	2009-08-28 at 15:00	63042	2009-08-28 at 20:00

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
TPH GRO	S 8015B	53796	2009-08-28 at 14:49	63025	2009-08-28 at 14:49
V, Total	S 6010B	53951	2009-09-03 at 08:16	63221	2009-09-03 at 10:42
Zn, Total	S 6010B	53951	2009-09-03 at 08:16	63221	2009-09-03 at 10:42

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 9082815 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

## Analytical Report

### Sample: 208427 - HLSF-0143-HMW-037-0809

Laboratory: Lubbock  
 Analysis: Ag, Total Analytical Method: S 6010B Prep Method: S 3010A  
 QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
 Prep Batch: 53951 Sample Preparation: 2009-09-03 Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Silver	U	<0.00111	<0.00500	<0.00111	mg/L	1	0.00111	0.005	0.00111

### Sample: 208427 - HLSF-0143-HMW-037-0809

Laboratory: Lubbock  
 Analysis: Al, Total Analytical Method: S 6010B Prep Method: S 3010A  
 QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
 Prep Batch: 53951 Sample Preparation: 2009-09-03 Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Aluminum		<b>0.135</b>	<b>0.135</b>	<0.00301	mg/L	1	0.00301	0.05	0.00301

### Sample: 208427 - HLSF-0143-HMW-037-0809

Laboratory: El Paso  
 Analysis: Alkalinity Analytical Method: SM 2320B Prep Method: N/A  
 QC Batch: 63379 Date Analyzed: 2009-09-08 Analyzed By: JG  
 Prep Batch: 54095 Sample Preparation: Prepared By: JG

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Hydroxide Alkalinity	U	<1.00	<1.00	<1.00	mg/L as CaCo3	1	1.00	1	1
Carbonate Alkalinity	U	<1.00	<1.00	<1.00	mg/L as CaCo3	1	1.00	1	1
Bicarbonate Alkalinity		<b>122</b>	<b>122</b>	<4.00	mg/L as CaCo3	1	4.00	4	4
Total Alkalinity		<b>122</b>	<b>122</b>	<4.00	mg/L as CaCo3	1	4.00	4	4

### Sample: 208427 - HLSF-0143-HMW-037-0809

Laboratory: Lubbock  
 Analysis: Ammonia Analytical Method: SM 4500-NH3 B,C Prep Method: N/A  
 QC Batch: 63111 Date Analyzed: 2009-08-31 Analyzed By: AH  
 Prep Batch: 53864 Sample Preparation: 2009-08-31 Prepared By: AH

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Ammonia-N	J	<b>0.392</b>	<1.00	<0.353	mg/L	1	0.353	1	0.353

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock

Analysis: As, Total

Analytical Method: S 6010B

Prep Method: S 3010A

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Prep Batch: 53951

Sample Preparation: 2009-09-03

Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Arsenic	U	<0.00448	<0.0100	<0.00448	mg/L	1	0.00448	0.01	0.00448

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock

Analysis: Ba, Total

Analytical Method: S 6010B

Prep Method: S 3010A

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Prep Batch: 53951

Sample Preparation: 2009-09-03

Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Barium		<b>0.0130</b>	<b>0.0130</b>	<0.00105	mg/L	1	0.00105	0.005	0.00105

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock

Analysis: Be, Total

Analytical Method: S 6010B

Prep Method: S 3010A

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Prep Batch: 53951

Sample Preparation: 2009-09-03

Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Beryllium	U	<0.000450	<0.00200	<0.000450	mg/L	1	0.000450	0.002	0.00045

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock

Analysis: Bromide (IC)

Analytical Method: E 300.0

Prep Method: N/A

QC Batch: 63249 Date Analyzed: 2009-08-31 Analyzed By: SS  
 Prep Batch: 53984 Sample Preparation: 2009-08-31 Prepared By: SS

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Bromide	U	<0.960	<2.50	<0.960	mg/L	5	0.960	0.5	0.192

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock  
 Analysis: Ca, Total Analytical Method: S 6010B Prep Method: S 3010A  
 QC Batch: 63355 Date Analyzed: 2009-09-09 Analyzed By: RR  
 Prep Batch: 53951 Sample Preparation: 2009-09-03 Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Calcium		544	544	<1.17	mg/L	10	1.17	1	0.117

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock  
 Analysis: Cd, Total Analytical Method: S 6010B Prep Method: S 3010A  
 QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
 Prep Batch: 53951 Sample Preparation: 2009-09-03 Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Cadmium	U	<0.000303	<0.00200	<0.000303	mg/L	1	0.000303	0.002	0.000303

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock  
 Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 63249 Date Analyzed: 2009-08-31 Analyzed By: SS  
 Prep Batch: 53984 Sample Preparation: 2009-08-31 Prepared By: SS

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		220	220	<0.785	mg/L	5	0.785	2.5	0.157

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory:	El Paso	Analytical Method:	SM 3500-Cr B	Prep Method:	N/A
Analysis:	Chromium, Hexavalent	Date Analyzed:	2009-08-27	Analyzed By:	MD
QC Batch:	63015	Sample Preparation:	2009-08-27	Prepared By:	MD
Prep Batch:	53776				

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Hexavalent Chromium	<i>U</i>	<0.00594	<0.0100	<0.00594	mg/L	1	0.00594	0.01	0.00594

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory:	Lubbock	Analytical Method:	S 6010B	Prep Method:	S 3010A
Analysis:	Co, Total	Date Analyzed:	2009-09-03	Analyzed By:	RR
QC Batch:	63221	Sample Preparation:	2009-09-03	Prepared By:	KV
Prep Batch:	53951				

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Cobalt	<i>U</i>	<0.000822	<0.00200	<0.000822	mg/L	1	0.000822	0.002	0.000822

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory:	Lubbock	Analytical Method:	S 6010B	Prep Method:	S 3005A
Analysis:	Cr, Dissolved	Date Analyzed:	2009-09-11	Analyzed By:	RR
QC Batch:	63461	Sample Preparation:	2009-09-11	Prepared By:	KV
Prep Batch:	54153				

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Dissolved Chromium		<b>0.00300</b>	<b>0.00300</b>	<0.000583	mg/L	1	0.000583	0.001	0.000583

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory:	Lubbock	Analytical Method:	S 6010B	Prep Method:	S 3010A
Analysis:	Cr, Total	Date Analyzed:	2009-09-03	Analyzed By:	RR
QC Batch:	63221	Sample Preparation:	2009-09-03	Prepared By:	KV
Prep Batch:	53951				

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Chromium	<i>J</i>	<b>0.00400</b>	<0.00500	<0.000583	mg/L	1	0.000583	0.005	0.000583



**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock

Analysis: Cu, Total

Analytical Method: S 6010B

Prep Method: S 3010A

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Prep Batch: 53951

Sample Preparation: 2009-09-03

Prepared By: KV

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Copper	U	<0.000843	<0.00500	<0.000843	mg/L	1	0.000843	0.005	0.000843

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock

Analysis: Explosives (8330)

Analytical Method: S 8330-C18

Prep Method: S 3535A

QC Batch: 63142

Date Analyzed: 2009-09-01

Analyzed By: DS

Prep Batch: 53897

Sample Preparation: 2009-09-01

Prepared By: DS

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
HMX	U	<0.123	<0.500	<0.123	µg/L	1	0.123	0.5	0.123
RDX	U	<0.298	<0.500	<0.298	µg/L	1	0.298	0.5	0.298
1,3,5-Trinitrobenzene	U	<0.339	<0.500	<0.339	µg/L	1	0.339	0.5	0.339
1,3-Dinitrobenzene	U	<0.389	<0.500	<0.389	µg/L	1	0.389	0.5	0.389
Nitrobenzene	U	<0.379	<0.500	<0.379	µg/L	1	0.379	0.5	0.379
Tetryl	U	<0.413	<0.500	<0.413	µg/L	1	0.413	0.5	0.413
TNT	U	<0.464	<0.500	<0.464	µg/L	1	0.464	0.5	0.464
4-Amino-DNT	U	<0.319	<0.500	<0.319	µg/L	1	0.319	0.5	0.319
2-Amino-DNT	U	<0.391	<0.500	<0.391	µg/L	1	0.391	0.5	0.391
2,6-DNT	U	<0.323	<0.500	<0.323	µg/L	1	0.323	0.5	0.323
2,4-DNT	U	<0.366	<0.500	<0.366	µg/L	1	0.366	0.5	0.366
2-NT	U	<0.379	<0.500	<0.379	µg/L	1	0.379	0.5	0.379
4-NT	U	<0.398	<0.500	<0.398	µg/L	1	0.398	0.5	0.398
3-NT	U	<0.346	<0.500	<0.346	µg/L	1	0.346	0.5	0.346

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
1,2-Dinitrobenzene		1.87	µg/L	1	2.50	75	19.8 - 160

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock

Analysis: Fe, Total

Analytical Method: S 6010B

Prep Method: S 3010A

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Prep Batch: 53951

Sample Preparation: 2009-09-03

Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Iron		<b>0.0360</b>	<b>0.0360</b>	<0.000872	mg/L	1	0.000872	0.01	0.000872

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock  
 Analysis: Fluoride (IC) Analytical Method: E 300.0 Prep Method: N/A  
 QC Batch: 63249 Date Analyzed: 2009-08-31 Analyzed By: SS  
 Prep Batch: 53984 Sample Preparation: 2009-08-31 Prepared By: SS

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Fluoride	U	<1.02	<2.50	<1.02	mg/L	5	1.02	0.5	0.204

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock  
 Analysis: Hg, Total Analytical Method: S 7470A Prep Method: N/A  
 QC Batch: 63072 Date Analyzed: 2009-08-31 Analyzed By: TP  
 Prep Batch: 53821 Sample Preparation: 2009-08-31 Prepared By: TP

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Mercury	U	<0.0000329	<0.000200	<0.0000329	mg/L	1	0.0000329	0.0002	3.29e-05

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock  
 Analysis: K, Total Analytical Method: S 6010B Prep Method: S 3010A  
 QC Batch: 63355 Date Analyzed: 2009-09-09 Analyzed By: RR  
 Prep Batch: 53951 Sample Preparation: 2009-09-03 Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Potassium		<b>86.2</b>	<b>86.2</b>	<0.172	mg/L	1	0.172	1	0.172

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock  
 Analysis: Mg, Total Analytical Method: S 6010B Prep Method: S 3010A

QC Batch: 63355  
Prep Batch: 53951Date Analyzed: 2009-09-09  
Sample Preparation: 2009-09-03Analyzed By: RR  
Prepared By: KV

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Magnesium		<b>328</b>	<b>328</b>	<1.60	mg/L	10	1.60	1	0.16

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock

Analysis: Mn, Total

Analytical Method: S 6010B

Prep Method: S 3010A

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Prep Batch: 53951

Sample Preparation: 2009-09-03

Prepared By: KV

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Manganese	J	<b>0.000400</b>	<0.00250	<0.000305	mg/L	1	0.000305	0.0025	0.000305

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock

Analysis: Mo, Total

Analytical Method: S 6010B

Prep Method: S 3010A

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Prep Batch: 53951

Sample Preparation: 2009-09-03

Prepared By: KV

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Molybdenum		<b>0.125</b>	<b>0.125</b>	<0.00119	mg/L	1	0.00119	0.01	0.00119

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock

Analysis: Na, Total

Analytical Method: S 6010B

Prep Method: S 3010A

QC Batch: 63355

Date Analyzed: 2009-09-09

Analyzed By: RR

Prep Batch: 53951

Sample Preparation: 2009-09-03

Prepared By: KV

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Sodium		<b>401</b>	<b>401</b>	<0.500	mg/L	10	0.500	1	0.05

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock  
 Analysis: Ni, Total  
 QC Batch: 63221  
 Prep Batch: 53951

Analytical Method: S 6010B  
 Date Analyzed: 2009-09-03  
 Sample Preparation: 2009-09-03

Prep Method: S 3010A  
 Analyzed By: RR  
 Prepared By: KV

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Nickel	<i>U</i>	<0.00121	<0.00500	<0.00121	mg/L	1	0.00121	0.005	0.00121

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock

Analysis: Nitrate and Nitrite as N  
 QC Batch: 63485  
 Prep Batch: 54188

Analytical Method: SM 4500-NO3 E  
 Date Analyzed: 2009-09-11  
 Sample Preparation: 2009-09-11

Prep Method: N/A  
 Analyzed By: KV  
 Prepared By: KV

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Nitrate and Nitrite as N	<i>J</i>	<b>14.5</b>	<20.0	<7.00	mg/L	200	7.00	0.1	0.035

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: El Paso

Analysis: O/G  
 QC Batch: 63411  
 Prep Batch: 54129

Analytical Method: E 1664  
 Date Analyzed: 2009-09-09  
 Sample Preparation: 2009-09-08

Prep Method: N/A  
 Analyzed By: MD  
 Prepared By: MD

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Oil and Grease	<i>U</i>	<3.60	<5.00	<3.60	mg/L	1	3.60	5	3.6

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock

Analysis: P, Total  
 QC Batch: 63221  
 Prep Batch: 53951

Analytical Method: S 6010B  
 Date Analyzed: 2009-09-03  
 Sample Preparation: 2009-09-03

Prep Method: S 3010A  
 Analyzed By: RR  
 Prepared By: KV

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Phosphorous	<i>U</i>	<0.00289	<0.0250	<0.00289	mg/L	1	0.00289	0.025	0.00289

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock  
 Analysis: Pb, Total Analytical Method: S 6010B Prep Method: S 3010A  
 QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
 Prep Batch: 53951 Sample Preparation: 2009-09-03 Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Lead	U	<0.00326	<0.00500	<0.00326	mg/L	1	0.00326	0.005	0.00326

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: El Paso  
 Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A  
 QC Batch: 63082 Date Analyzed: 2009-08-27 Analyzed By: JG  
 Prep Batch: 53841 Sample Preparation: 2009-08-27 Prepared By: JR

Parameter	Flag	RL Result	Units	Dilution	RL
pH		7.33	s.u.	1	

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock  
 Analysis: Sb, Total Analytical Method: S 6010B Prep Method: S 3010A  
 QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
 Prep Batch: 53951 Sample Preparation: 2009-09-03 Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Antimony	U	<0.00440	<0.0200	<0.00440	mg/L	1	0.00440	0.02	0.0044

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock  
 Analysis: Se, Total Analytical Method: S 6010B Prep Method: S 3010A  
 QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
 Prep Batch: 53951 Sample Preparation: 2009-09-03 Prepared By: KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Selenium	J	<b>0.0140</b>	<0.0200	<0.00508	mg/L	1	0.00508	0.02	0.00508

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock

Analysis: Semivolatiles

QC Batch: 63261

Prep Batch: 53996

Analytical Method: S 8270C

Date Analyzed: 2009-09-04

Sample Preparation: 2009-09-02

Prep Method: S 3510C

Analyzed By: MN

Prepared By: MN

Parameter	Flag	SDL	MQL	Method	Units	Dilution	SDL	MQL	MDL
		Based Result	Based Result	Blank Result				(Unadjusted)	(Unadjusted)
Pyridine	U	<0.000624	<0.00513	<0.000624	mg/L	1.026	0.000624	0.005	0.000608
N-Nitrosodimethylamine	U	<0.000566	<0.00513	<0.000566	mg/L	1.026	0.000566	0.005	0.000552
2-Picoline	U	<0.000419	<0.00513	<0.000419	mg/L	1.026	0.000419	0.005	0.000408
Methyl methanesulfonate	U	<0.000359	<0.00513	<0.000359	mg/L	1.026	0.000359	0.005	0.00035
Ethyl methanesulfonate	U	<0.000460	<0.00513	<0.000460	mg/L	1.026	0.000460	0.005	0.000448
Phenol	U	<0.000522	<0.00513	<0.000522	mg/L	1.026	0.000522	0.005	0.000509
Aniline	U	<0.000709	<0.00513	<0.000709	mg/L	1.026	0.000709	0.005	0.000691
bis(2-chloroethyl)ether	U	<0.000451	<0.00513	<0.000451	mg/L	1.026	0.000451	0.005	0.00044
2-Chlorophenol	U	<0.000551	<0.00513	<0.000551	mg/L	1.026	0.000551	0.005	0.000537
1,3-Dichlorobenzene (meta)	U	<0.000452	<0.00513	<0.000452	mg/L	1.026	0.000452	0.005	0.000441
1,4-Dichlorobenzene (para)	U	<0.000451	<0.00513	<0.000451	mg/L	1.026	0.000451	0.005	0.00044
Benzyl alcohol	U	<0.000552	<0.00513	<0.000552	mg/L	1.026	0.000552	0.005	0.000538
1,2-Dichlorobenzene (ortho)	U	<0.000454	<0.00513	<0.000454	mg/L	1.026	0.000454	0.005	0.000443
2-Methylphenol	U	<0.000745	<0.00513	<0.000745	mg/L	1.026	0.000745	0.005	0.000726
bis(2-chloroisopropyl)ether	U	<0.000516	<0.00513	<0.000516	mg/L	1.026	0.000516	0.005	0.000503
4-Methylphenol / 3-Methylphenol	U	<0.000525	<0.00513	<0.000525	mg/L	1.026	0.000525	0.005	0.000512
N-Nitrosodi-n-propylamine	U	<0.000751	<0.00513	<0.000751	mg/L	1.026	0.000751	0.005	0.000732
Hexachloroethane	U	<0.000520	<0.00513	<0.000520	mg/L	1.026	0.000520	0.005	0.000507
Acetophenone	U	<0.000435	<0.00513	<0.000435	mg/L	1.026	0.000435	0.005	0.000424
Nitrobenzene	U	<0.000477	<0.00513	<0.000477	mg/L	1.026	0.000477	0.005	0.000465
N-Nitrosopiperidine	U	<0.000454	<0.00513	<0.000454	mg/L	1.026	0.000454	0.005	0.000443
Isophorone	U	<0.000635	<0.00513	<0.000635	mg/L	1.026	0.000635	0.005	0.000619
2-Nitrophenol	U	<0.000416	<0.00513	<0.000416	mg/L	1.026	0.000416	0.005	0.000406
2,4-Dimethylphenol	U	<0.000489	<0.00513	<0.000489	mg/L	1.026	0.000489	0.005	0.000477
bis(2-chloroethoxy)methane	U	<0.000443	<0.00513	<0.000443	mg/L	1.026	0.000443	0.005	0.000432
2,4-Dichlorophenol	U	<0.000410	<0.00513	<0.000410	mg/L	1.026	0.000410	0.005	0.0004
1,2,4-Trichlorobenzene	U	<0.000414	<0.00513	<0.000414	mg/L	1.026	0.000414	0.005	0.000404
Benzoic acid	U	<0.00167	<0.00513	<0.00167	mg/L	1.026	0.00167	0.005	0.00163
Naphthalene	U	<0.000502	<0.00513	<0.000502	mg/L	1.026	0.000502	0.005	0.000489
a,a-Dimethylphenethylamine	U	<0.00132	<0.00513	<0.00132	mg/L	1.026	0.00132	0.005	0.00129
4-Chloroaniline	U	<0.000388	<0.00513	<0.000388	mg/L	1.026	0.000388	0.005	0.000378
2,6-Dichlorophenol	U	<0.000496	<0.0103	<0.000496	mg/L	1.026	0.000496	0.01	0.000484
Hexachlorobutadiene	U	<0.000530	<0.00513	<0.000530	mg/L	1.026	0.000530	0.005	0.000517
N-Nitroso-di-n-butylamine	U	<0.000673	<0.00513	<0.000673	mg/L	1.026	0.000673	0.005	0.000656
4-Chloro-3-methylphenol	U	<0.000536	<0.00513	<0.000536	mg/L	1.026	0.000536	0.005	0.000522
2-Methylnaphthalene	U	<0.000434	<0.00513	<0.000434	mg/L	1.026	0.000434	0.005	0.000423
1-Methylnaphthalene	U	<0.000508	<0.00513	<0.000508	mg/L	1.026	0.000508	0.005	0.000495
1,2,4,5-Tetrachlorobenzene	U	<0.000628	<0.00513	<0.000628	mg/L	1.026	0.000628	0.005	0.000612
Hexachlorocyclopentadiene	U	<0.000572	<0.00513	<0.000572	mg/L	1.026	0.000572	0.005	0.000558
2,4,6-Trichlorophenol	U	<0.000815	<0.0103	<0.000815	mg/L	1.026	0.000815	0.01	0.000794

*continued ...*

*sample 208427 continued . . .*

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
2,4,5-Trichlorophenol	U	<0.000856	<0.00513	<0.000856	mg/L	1.026	0.000856	0.005	0.000834
2-Chloronaphthalene	U	<0.000427	<0.00513	<0.000427	mg/L	1.026	0.000427	0.005	0.000416
1-Chloronaphthalene	U	<0.000488	<0.00513	<0.000488	mg/L	1.026	0.000488	0.005	0.000476
2-Nitroaniline	U	<0.000780	<0.00513	<0.000780	mg/L	1.026	0.000780	0.005	0.00076
Dimethylphthalate	U	<0.000660	<0.00513	<0.000660	mg/L	1.026	0.000660	0.005	0.000643
Acenaphthylene	U	<0.000601	<0.00513	<0.000601	mg/L	1.026	0.000601	0.005	0.000586
2,6-Dinitrotoluene	U	<0.000657	<0.00513	<0.000657	mg/L	1.026	0.000657	0.005	0.00064
3-Nitroaniline	U	<0.000740	<0.00513	<0.000740	mg/L	1.026	0.000740	0.005	0.000721
Acenaphthene	U	<0.000434	<0.00513	<0.000434	mg/L	1.026	0.000434	0.005	0.000423
2,4-Dinitrophenol	U	<0.000226	<0.00513	<0.000226	mg/L	1.026	0.000226	0.005	0.00022
Dibenzofuran	U	<0.000419	<0.00513	<0.000419	mg/L	1.026	0.000419	0.005	0.000408
Pentachlorobenzene	U	<0.000586	<0.00513	<0.000586	mg/L	1.026	0.000586	0.005	0.000571
4-Nitrophenol	U	<0.00190	<0.0256	<0.00190	mg/L	1.026	0.00190	0.025	0.00185
2,4-Dinitrotoluene	J	<b>0.00103</b>	<0.00513	<0.000935	mg/L	1.026	0.000935	0.005	0.000911
1-Naphthylamine	U	<0.000706	<0.00513	<0.000706	mg/L	1.026	0.000706	0.005	0.000688
2,3,4,6-Tetrachlorophenol	U	<0.000580	<0.0103	<0.000580	mg/L	1.026	0.000580	0.01	0.000565
2-Naphthylamine	U	<0.000717	<0.00513	<0.000717	mg/L	1.026	0.000717	0.005	0.000699
Fluorene	U	<0.000665	<0.00513	<0.000665	mg/L	1.026	0.000665	0.005	0.000648
4-Chlorophenyl-phenylether	U	<0.000635	<0.00513	<0.000635	mg/L	1.026	0.000635	0.005	0.000619
Diethylphthalate	U	<0.000850	<0.00513	<0.000850	mg/L	1.026	0.000850	0.005	0.000828
4-Nitroaniline	U	<0.000720	<0.00513	<0.000720	mg/L	1.026	0.000720	0.005	0.000702
Diphenylhydrazine	U	<0.000674	<0.00513	<0.000674	mg/L	1.026	0.000674	0.005	0.000657
4,6-Dinitro-2-methylphenol	U	<0.00203	<0.00513	<0.00203	mg/L	1.026	0.00203	0.005	0.00198
Diphenylamine	U	<0.000451	<0.00513	<0.000451	mg/L	1.026	0.000451	0.005	0.00044
4-Bromophenyl-phenylether	U	<0.000564	<0.00513	<0.000564	mg/L	1.026	0.000564	0.005	0.00055
Phenacetin	U	<0.000621	<0.00513	<0.000621	mg/L	1.026	0.000621	0.005	0.000605
Hexachlorobenzene	U	<0.000519	<0.00513	<0.000519	mg/L	1.026	0.000519	0.005	0.000506
4-Aminobiphenyl	U	<0.000541	<0.00513	<0.000541	mg/L	1.026	0.000541	0.005	0.000527
Pentachlorophenol	U	<0.000446	<0.0103	<0.000446	mg/L	1.026	0.000446	0.01	0.000435
Anthracene	U	<0.000439	<0.00513	<0.000439	mg/L	1.026	0.000439	0.005	0.000428
Pentachloronitrobenzene	U	<0.000419	<0.00513	<0.000419	mg/L	1.026	0.000419	0.005	0.000408
Pronamide	U	<0.000488	<0.00513	<0.000488	mg/L	1.026	0.000488	0.005	0.000476
Phenanthrene	U	<0.000562	<0.00513	<0.000562	mg/L	1.026	0.000562	0.005	0.000548
Di-n-butylphthalate	U	<0.000496	<0.00513	<0.000496	mg/L	1.026	0.000496	0.005	0.000483
Fluoranthene	U	<0.000648	<0.00513	<0.000648	mg/L	1.026	0.000648	0.005	0.000632
Benzidine	U	<0.00244	<0.0256	<0.00244	mg/L	1.026	0.00244	0.025	0.00238
Pyrene	U	<0.000742	<0.00513	<0.000742	mg/L	1.026	0.000742	0.005	0.000723
p-Dimethylaminoazobenzene	U	<0.000925	<0.00513	<0.000925	mg/L	1.026	0.000925	0.005	0.000902
Butylbenzylphthalate	U	<0.000456	<0.00513	<0.000456	mg/L	1.026	0.000456	0.005	0.000445
Benzo(a)anthracene	U	<0.000541	<0.00513	<0.000541	mg/L	1.026	0.000541	0.005	0.000527
3,3-Dichlorobenzidine	U	<0.00121	<0.00513	<0.00121	mg/L	1.026	0.00121	0.005	0.00118
Chrysene	U	<0.000654	<0.00513	<0.000654	mg/L	1.026	0.000654	0.005	0.000638
bis(2-ethylhexyl)phthalate	U	<0.000576	<0.00513	<0.000576	mg/L	1.026	0.000576	0.005	0.000561
Di-n-octylphthalate	U	<0.00119	<0.00513	<0.00119	mg/L	1.026	0.00119	0.005	0.00116
Benzo(b)fluoranthene	U	<0.000902	<0.00513	<0.000902	mg/L	1.026	0.000902	0.005	0.000879

*continued . . .*

*sample 208427 continued . . .*

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Benzo(k)fluoranthene	U	<0.000867	<0.00513	<0.000867	mg/L	1.026	0.000867	0.005	0.000845
7,12-Dimethylbenz(a)anthracene	U	<0.00105	<0.00513	<0.00105	mg/L	1.026	0.00105	0.005	0.00102
Benzo(a)pyrene	U	<0.00171	<0.00513	<0.00171	mg/L	1.026	0.00171	0.005	0.00167
3-Methylcholanthrene	U	<0.000932	<0.00513	<0.000932	mg/L	1.026	0.000932	0.005	0.000908
Dibenzo(a,j)acridine	U	<0.00132	<0.00513	<0.00132	mg/L	1.026	0.00132	0.005	0.00129
Indeno(1,2,3-cd)pyrene	U	<0.000884	<0.00513	<0.000884	mg/L	1.026	0.000884	0.005	0.000862
Dibenzo(a,h)anthracene	U	<0.000830	<0.00513	<0.000830	mg/L	1.026	0.000830	0.005	0.000809
Benzo(g,h,i)perylene	U	<0.000974	<0.00513	<0.000974	mg/L	1.026	0.000974	0.005	0.000949

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.0237	mg/L	1.026	0.0800	30	10 - 53.1
Phenol-d5		0.0157	mg/L	1.026	0.0800	20	10 - 36.9
Nitrobenzene-d5		0.0356	mg/L	1.026	0.0800	44	23.8 - 108
2-Fluorobiphenyl		0.0248	mg/L	1.026	0.0800	31	15.9 - 127
2,4,6-Tribromophenol		0.0539	mg/L	1.026	0.0800	67	10 - 123
Terphenyl-d14		0.0439	mg/L	1.026	0.0800	55	17.2 - 160

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock

Analysis: SO4 (IC)

QC Batch: 63249

Prep Batch: 53984

Analytical Method: E 300.0

Date Analyzed: 2009-08-31

Sample Preparation: 2009-08-31

Prep Method: N/A

Analyzed By: SS

Prepared By: SS

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Sulfate		<b>3090</b>	<b>3090</b>	<15.3	mg/L	100	15.3	2.5	0.153

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: El Paso

Analysis: TDS

QC Batch: 63272

Prep Batch: 54007

Analytical Method: SM 2540C

Date Analyzed: 2009-09-01

Sample Preparation: 2009-09-01

Prep Method: N/A

Analyzed By: MD

Prepared By: MD

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Dissolved Solids		<b>5320</b>	<b>5320</b>	<5.00	mg/L	1	5.00		5



**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock

Analysis: TKN

Analytical Method: E 351.3

Prep Method: N/A

QC Batch: 63291

Date Analyzed: 2009-09-02

Analyzed By: AH

Prep Batch: 54023

Sample Preparation: 2009-09-02

Prepared By: AH

Parameter	Flag	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
		Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Kjeldahl Nitrogen - N	J	3.64	<10.0	<2.45	mg/L	1	2.45	10	2.45

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock

Analysis: Tl, Total

Analytical Method: S 6010B

Prep Method: S 3010A

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Prep Batch: 53951

Sample Preparation: 2009-09-03

Prepared By: KV

Parameter	Flag	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
		Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Thallium	U	<0.00488	<0.0500	<0.00488	mg/L	1	0.00488	0.05	0.00488

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock

Analysis: TOC

Analytical Method: SM 5310C

Prep Method: N/A

QC Batch: 63340

Date Analyzed: 2009-09-08

Analyzed By: KV

Prep Batch: 54065

Sample Preparation: 2009-09-08

Prepared By: KV

Parameter	Flag	SDL	SQL	Method	Units	Dilution	SDL	SQL	MDL
		Based	Based	Blank				(Unadjusted)	(Unadjusted)
Total Organic Carbon		1.44	1.44	<0.401	mg/L	1	0.401	1	0.401

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock

Analysis: Total Cyanide

Analytical Method: SM 4500-CN C,E

Prep Method: N/A

QC Batch: 63080

Date Analyzed: 2009-08-31

Analyzed By: AH

Prep Batch: 53840

Sample Preparation: 2009-08-31

Prepared By: AH

*continued . . .*

*sample 208427 continued ...*

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
Total Cyanide	U	<0.0110	<0.0150	<0.0110	mg/L	1	0.0110	0.015	0.011

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock

Analysis: TPH DRO

Analytical Method: Mod. 8015B

Prep Method: N/A

QC Batch: 63042

Date Analyzed: 2009-08-28

Analyzed By:

Prep Batch: 53812

Sample Preparation: 2009-08-28

Prepared By:

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
DRO	U	<0.876	<5.00	<0.876	mg/L	1	0.876	5	0.876

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		8.39	mg/L	1	10.0	84	34.4 - 185

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock

Analysis: TPH GRO

Analytical Method: S 8015B

Prep Method: S 5030B

QC Batch: 63025

Date Analyzed: 2009-08-28

Analyzed By: ER

Prep Batch: 53796

Sample Preparation: 2009-08-28

Prepared By: ER

Parameter	Flag	SDL Based Result	SQL Based Result	Method Blank Result	Units	Dilution	SDL	SQL (Unadjusted)	MDL (Unadjusted)
GRO	U	<0.0702	<0.200	<0.0702	mg/L	1	0.0702	0.2	0.0702

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.106	mg/L	1	0.100	106	84.5 - 115
4-Bromofluorobenzene (4-BFB)		0.0857	mg/L	1	0.100	86	66.5 - 103

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory: Lubbock

Analysis:	V, Total	Analytical Method:	S 6010B	Prep Method:	S 3010A
QC Batch:	63221	Date Analyzed:	2009-09-03	Analyzed By:	RR
Prep Batch:	53951	Sample Preparation:	2009-09-03	Prepared By:	KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Vanadium		0.0160	0.0160	<0.000426	mg/L	1	0.000426	0.005	0.000426

**Sample: 208427 - HLSF-0143-HMW-037-0809**

Laboratory:	Lubbock			Analytical Method:	S 6010B	Prep Method:	S 3010A
Analysis:	Zn, Total			Date Analyzed:	2009-09-03	Analyzed By:	RR
QC Batch:	63221			Sample Preparation:	2009-09-03	Prepared By:	KV

Parameter	Flag	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Total Zinc	U	<0.000465	<0.00500	<0.000465	mg/L	1	0.000465	0.005	0.000465

**Method Blank (1)**

QC Batch:	63015	Date Analyzed:	2009-08-27	Analyzed By:	MD
Prep Batch:	53776	QC Preparation:	2009-08-27	Prepared By:	MD

Parameter	Flag	Result	Units	Reporting Limits
Hexavalent Chromium		<0.010	mg/L	0.00594

**Method Blank (1)**

QC Batch:	63025	Date Analyzed:	2009-08-28	Analyzed By:	ER
Prep Batch:	53796	QC Preparation:	2009-08-28	Prepared By:	ER

Parameter	Flag	Result	Units	Reporting Limits
GRO		<0.0702	mg/L	0.0702

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0979	mg/L	1	0.100	98	84.5 - 115
4-Bromofluorobenzene (4-BFB)		0.0803	mg/L	1	0.100	80	66.5 - 103

**Method Blank (1)**QC Batch: 63042  
Prep Batch: 53812Date Analyzed: 2009-08-28  
QC Preparation: 2009-08-28Analyzed By:  
Prepared By:

Parameter	Flag	Result	Units	Reporting Limits
DRO		<0.876	mg/L	0.876

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		8.44	mg/L	1	10.0	84	34.4 - 185

**Method Blank (1)**QC Batch: 63072  
Prep Batch: 53821Date Analyzed: 2009-08-31  
QC Preparation: 2009-08-31Analyzed By: TP  
Prepared By: TP

Parameter	Flag	Result	Units	Reporting Limits
Total Mercury		<0.0000329	mg/L	3.29e-05

**Method Blank (1)**QC Batch: 63080  
Prep Batch: 53840Date Analyzed: 2009-08-31  
QC Preparation: 2009-08-31Analyzed By: AH  
Prepared By: AH

Parameter	Flag	Result	Units	Reporting Limits
Total Cyanide		<0.0110	mg/L	0.011

**Method Blank (1)**QC Batch: 63111  
Prep Batch: 53864Date Analyzed: 2009-08-31  
QC Preparation: 2009-08-31Analyzed By: AH  
Prepared By: AH

Parameter	Flag	Result	Units	Reporting Limits
Ammonia-N		<0.353	mg/L	0.353

**Method Blank (1)**QC Batch: 63142  
Prep Batch: 53897Date Analyzed: 2009-09-01  
QC Preparation: 2009-09-01Analyzed By: DS  
Prepared By: DS

Parameter	Flag	Result	Units	Reporting Limits
HMX		<0.123	µg/L	0.123
RDX		<0.298	µg/L	0.298
1,3,5-Trinitrobenzene		<0.339	µg/L	0.339
1,3-Dinitrobenzene		<0.389	µg/L	0.389
Nitrobenzene		<0.379	µg/L	0.379
Tetryl		<0.413	µg/L	0.413
TNT		<0.464	µg/L	0.464
4-Amino-DNT		<0.319	µg/L	0.319
2-Amino-DNT		<0.391	µg/L	0.391
2,6-DNT		<0.323	µg/L	0.323
2,4-DNT		<0.366	µg/L	0.366
2-NT		<0.379	µg/L	0.379
4-NT		<0.398	µg/L	0.398
3-NT		<0.346	µg/L	0.346

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
1,2-Dinitrobenzene		2.44	µg/L	1	2.50	98	19.8 - 160

**Method Blank (1)**QC Batch: 63221  
Prep Batch: 53951Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03Analyzed By: RR  
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Silver		<0.00111	mg/L	0.00111

**Method Blank (1)**QC Batch: 63221  
Prep Batch: 53951Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03Analyzed By: RR  
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Aluminum		<0.00301	mg/L	0.00301

**Method Blank (1)**QC Batch: 63221  
Prep Batch: 53951Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03Analyzed By: RR  
Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Arsenic		<0.00448	mg/L	0.00448

**Method Blank (1)**

QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
Prep Batch: 53951 QC Preparation: 2009-09-03 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Barium		<0.00105	mg/L	0.00105

**Method Blank (1)**

QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
Prep Batch: 53951 QC Preparation: 2009-09-03 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Beryllium		<0.000450	mg/L	0.00045

**Method Blank (1)**

QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
Prep Batch: 53951 QC Preparation: 2009-09-03 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Cadmium		<0.000303	mg/L	0.000303

**Method Blank (1)**

QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
Prep Batch: 53951 QC Preparation: 2009-09-03 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Cobalt		<0.000822	mg/L	0.000822

**Method Blank (1)**

QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
Prep Batch: 53951 QC Preparation: 2009-09-03 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Chromium		<0.000583	mg/L	0.000583

**Method Blank (1)**

QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
Prep Batch: 53951 QC Preparation: 2009-09-03 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Copper		<0.000843	mg/L	0.000843

**Method Blank (1)**

QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
Prep Batch: 53951 QC Preparation: 2009-09-03 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Iron		<0.000872	mg/L	0.000872

**Method Blank (1)**

QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
Prep Batch: 53951 QC Preparation: 2009-09-03 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Manganese		<0.000305	mg/L	0.000305

**Method Blank (1)**

QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
Prep Batch: 53951 QC Preparation: 2009-09-03 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Molybdenum		<0.00119	mg/L	0.00119

**Method Blank (1)**

QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
Prep Batch: 53951 QC Preparation: 2009-09-03 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Nickel		<0.00121	mg/L	0.00121

**Method Blank (1)**

QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
Prep Batch: 53951 QC Preparation: 2009-09-03 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Phosphorous		<0.00289	mg/L	0.00289

**Method Blank (1)**

QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
Prep Batch: 53951 QC Preparation: 2009-09-03 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Lead		<0.00326	mg/L	0.00326

**Method Blank (1)**

QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
Prep Batch: 53951 QC Preparation: 2009-09-03 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Antimony		<0.00440	mg/L	0.0044

**Method Blank (1)**

QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
Prep Batch: 53951 QC Preparation: 2009-09-03 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Selenium		<0.00508	mg/L	0.00508

**Method Blank (1)**

QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
Prep Batch: 53951 QC Preparation: 2009-09-03 Prepared By: KV



Parameter	Flag	Result	Units	Reporting Limits
Total Thallium		<0.00488	mg/L	0.00488

**Method Blank (1)**

QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
Prep Batch: 53951 QC Preparation: 2009-09-03 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Vanadium		<0.000426	mg/L	0.000426

**Method Blank (1)**

QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
Prep Batch: 53951 QC Preparation: 2009-09-03 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Zinc		<0.000465	mg/L	0.000465

**Method Blank (1)**

QC Batch: 63249 Date Analyzed: 2009-08-31 Analyzed By: SS  
Prep Batch: 53984 QC Preparation: 2009-08-31 Prepared By: SS

Parameter	Flag	Result	Units	Reporting Limits
Bromide		<0.192	mg/L	0.192

**Method Blank (1)**

QC Batch: 63249 Date Analyzed: 2009-08-31 Analyzed By: SS  
Prep Batch: 53984 QC Preparation: 2009-08-31 Prepared By: SS

Parameter	Flag	Result	Units	Reporting Limits
Chloride		<0.157	mg/L	0.157

**Method Blank (1)**

QC Batch: 63249 Date Analyzed: 2009-08-31 Analyzed By: SS  
Prep Batch: 53984 QC Preparation: 2009-08-31 Prepared By: SS

Parameter	Flag	Result	Units	Reporting Limits
Fluoride		<0.204	mg/L	0.204

**Method Blank (1)**

QC Batch: 63249

Date Analyzed: 2009-08-31

Analyzed By: SS

Prep Batch: 53984

QC Preparation: 2009-08-31

Prepared By: SS

Parameter	Flag	Result	Units	Reporting Limits
Sulfate		<0.153	mg/L	0.153

**Method Blank (1)**

QC Batch: 63261

Date Analyzed: 2009-09-04

Analyzed By: MN

Prep Batch: 53996

QC Preparation: 2009-09-02

Prepared By: MN

Parameter	Flag	Result	Units	Reporting Limits
Pyridine		<0.000608	mg/L	0.000608
N-Nitrosodimethylamine		<0.000552	mg/L	0.000552
2-Picoline		<0.000408	mg/L	0.000408
Methyl methanesulfonate		<0.000350	mg/L	0.00035
Ethyl methanesulfonate		<0.000448	mg/L	0.000448
Phenol		<0.000509	mg/L	0.000509
Aniline		<0.000691	mg/L	0.000691
bis(2-chloroethyl)ether		<0.000440	mg/L	0.00044
2-Chlorophenol		<0.000537	mg/L	0.000537
1,3-Dichlorobenzene (meta)		<0.000441	mg/L	0.000441
1,4-Dichlorobenzene (para)		<0.000440	mg/L	0.00044
Benzyl alcohol		<0.000538	mg/L	0.000538
1,2-Dichlorobenzene (ortho)		<0.000443	mg/L	0.000443
2-Methylphenol		<0.000726	mg/L	0.000726
bis(2-chloroisopropyl)ether		<0.000503	mg/L	0.000503
4-Methylphenol / 3-Methylphenol		<0.000512	mg/L	0.000512
N-Nitrosodi-n-propylamine		<0.000732	mg/L	0.000732
Hexachloroethane		<0.000507	mg/L	0.000507
Acetophenone		<0.000424	mg/L	0.000424
Nitrobenzene		<0.000465	mg/L	0.000465
N-Nitrosopiperidine		<0.000443	mg/L	0.000443
Isophorone		<0.000619	mg/L	0.000619
2-Nitrophenol		<0.000406	mg/L	0.000406
2,4-Dimethylphenol		<0.000477	mg/L	0.000477
bis(2-chloroethoxy)methane		<0.000432	mg/L	0.000432
2,4-Dichlorophenol		<0.000400	mg/L	0.0004
1,2,4-Trichlorobenzene		<0.000404	mg/L	0.000404

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Parameter	Flag	Result	Units	Reporting Limits
Benzoic acid		<0.00163	mg/L	0.00163
Naphthalene		<0.000489	mg/L	0.000489
a,a-Dimethylphenethylamine		<0.00129	mg/L	0.00129
4-Chloroaniline		<0.000378	mg/L	0.000378
2,6-Dichlorophenol		<0.000484	mg/L	0.000484
Hexachlorobutadiene		<0.000517	mg/L	0.000517
N-Nitroso-di-n-butylamine		<0.000656	mg/L	0.000656
4-Chloro-3-methylphenol		<0.000522	mg/L	0.000522
2-Methylnaphthalene		<0.000423	mg/L	0.000423
1-Methylnaphthalene		<0.000495	mg/L	0.000495
1,2,4,5-Tetrachlorobenzene		<0.000612	mg/L	0.000612
Hexachlorocyclopentadiene		<0.000558	mg/L	0.000558
2,4,6-Trichlorophenol		<0.000794	mg/L	0.000794
2,4,5-Trichlorophenol		<0.000834	mg/L	0.000834
2-Chloronaphthalene		<0.000416	mg/L	0.000416
1-Chloronaphthalene		<0.000476	mg/L	0.000476
2-Nitroaniline		<0.000760	mg/L	0.00076
Dimethylphthalate		<0.000643	mg/L	0.000643
Acenaphthylene		<0.000586	mg/L	0.000586
2,6-Dinitrotoluene		<0.000640	mg/L	0.00064
3-Nitroaniline		<0.000721	mg/L	0.000721
Acenaphthene		<0.000423	mg/L	0.000423
2,4-Dinitrophenol		<0.000220	mg/L	0.00022
Dibenzofuran		<0.000408	mg/L	0.000408
Pentachlorobenzene		<0.000571	mg/L	0.000571
4-Nitrophenol		<0.00185	mg/L	0.00185
2,4-Dinitrotoluene		<0.000911	mg/L	0.000911
1-Naphthylamine		<0.000688	mg/L	0.000688
2,3,4,6-Tetrachlorophenol		<0.000565	mg/L	0.000565
2-Naphthylamine		<0.000699	mg/L	0.000699
Fluorene		<0.000648	mg/L	0.000648
4-Chlorophenyl-phenylether		<0.000619	mg/L	0.000619
Diethylphthalate		<0.000828	mg/L	0.000828
4-Nitroaniline		<0.000702	mg/L	0.000702
Diphenylhydrazine		<0.000657	mg/L	0.000657
4,6-Dinitro-2-methylphenol		<0.00198	mg/L	0.00198
Diphenylamine		<0.000440	mg/L	0.00044
4-Bromophenyl-phenylether		<0.000550	mg/L	0.00055
Phenacetin		<0.000605	mg/L	0.000605
Hexachlorobenzene		<0.000506	mg/L	0.000506
4-Aminobiphenyl		<0.000527	mg/L	0.000527
Pentachlorophenol		<0.000435	mg/L	0.000435
Anthracene		<0.000428	mg/L	0.000428
Pentachloronitrobenzene		<0.000408	mg/L	0.000408
Pronamide		<0.000476	mg/L	0.000476
Phenanthrene		<0.000548	mg/L	0.000548
Di-n-butylphthalate		<0.000483	mg/L	0.000483

*continued . . .*

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Parameter	Flag	Result	Units	Reporting Limits
Fluoranthene		<0.000632	mg/L	0.000632
Benidine		<0.00238	mg/L	0.00238
Pyrene		<0.000723	mg/L	0.000723
p-Dimethylaminoazobenzene		<0.000902	mg/L	0.000902
Butylbenzylphthalate		<0.000445	mg/L	0.000445
Benzo(a)anthracene		<0.000527	mg/L	0.000527
3,3-Dichlorobenzidine		<0.00118	mg/L	0.00118
Chrysene		<0.000638	mg/L	0.000638
bis(2-ethylhexyl)phthalate		<0.000561	mg/L	0.000561
Di-n-octylphthalate		<0.00116	mg/L	0.00116
Benzo(b)fluoranthene		<0.000879	mg/L	0.000879
Benzo(k)fluoranthene		<0.000845	mg/L	0.000845
7,12-Dimethylbenz(a)anthracene		<0.00102	mg/L	0.00102
Benzo(a)pyrene		<0.00167	mg/L	0.00167
3-Methylcholanthrene		<0.000908	mg/L	0.000908
Dibenzo(a,j)acridine		<0.00129	mg/L	0.00129
Indeno(1,2,3-cd)pyrene		<0.000862	mg/L	0.000862
Dibenzo(a,h)anthracene		<0.000809	mg/L	0.000809
Benzo(g,h,i)perylene		<0.000949	mg/L	0.000949

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.0250	mg/L	1	0.0800	31	10 - 53.1
Phenol-d5		0.0158	mg/L	1	0.0800	20	10 - 36.9
Nitrobenzene-d5		0.0378	mg/L	1	0.0800	47	23.8 - 108
2-Fluorobiphenyl		0.0396	mg/L	1	0.0800	50	15.9 - 127
2,4,6-Tribromophenol		0.0493	mg/L	1	0.0800	62	10 - 123
Terphenyl-d14		0.0437	mg/L	1	0.0800	55	17.2 - 160

**Method Blank (1)**QC Batch: 63272  
Prep Batch: 54007Date Analyzed: 2009-09-01  
QC Preparation: 2009-09-01Analyzed By: MD  
Prepared By: MD

Parameter	Flag	Result	Units	Reporting Limits
Total Dissolved Solids		<5.00	mg/L	5

**Method Blank (1)**QC Batch: 63291  
Prep Batch: 54023Date Analyzed: 2009-09-02  
QC Preparation: 2009-09-02Analyzed By: AH  
Prepared By: AH

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Parameter	Flag	Result	Units	Reporting Limits
Total Kjeldahl Nitrogen - N		<2.45	mg/L	2.45

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**Method Blank (1)**

QC Batch: 63340                      Date Analyzed: 2009-09-08                      Analyzed By: KV  
Prep Batch: 54065                      QC Preparation: 2009-09-08                      Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Organic Carbon		0.848	mg/L	0.401

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**Method Blank (1)**

QC Batch: 63355                      Date Analyzed: 2009-09-09                      Analyzed By: RR  
Prep Batch: 53951                      QC Preparation: 2009-09-03                      Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Calcium		<0.117	mg/L	0.117

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**Method Blank (1)**

QC Batch: 63355                      Date Analyzed: 2009-09-09                      Analyzed By: RR  
Prep Batch: 53951                      QC Preparation: 2009-09-03                      Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Potassium		<0.172	mg/L	0.172

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**Method Blank (1)**

QC Batch: 63355                      Date Analyzed: 2009-09-09                      Analyzed By: RR  
Prep Batch: 53951                      QC Preparation: 2009-09-03                      Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Magnesium		<0.160	mg/L	0.16

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**Method Blank (1)**

QC Batch: 63355                      Date Analyzed: 2009-09-09                      Analyzed By: RR  
Prep Batch: 53951                      QC Preparation: 2009-09-03                      Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Total Sodium		<0.0500	mg/L	0.05

**Method Blank (1)**

QC Batch: 63379 Date Analyzed: 2009-09-08 Analyzed By: JG  
Prep Batch: 54095 QC Preparation: 2009-09-08 Prepared By: JG

Parameter	Flag	Result	Units	Reporting Limits
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1
Bicarbonate Alkalinity		<4.00	mg/L as CaCo3	4
Total Alkalinity		<4.00	mg/L as CaCo3	4

**Method Blank (1)**

QC Batch: 63411 Date Analyzed: 2009-09-09 Analyzed By: MD  
Prep Batch: 54129 QC Preparation: 2009-09-08 Prepared By: MD

Parameter	Flag	Result	Units	Reporting Limits
Oil and Grease		<6.20	mg/L	3.6

**Method Blank (1)**

QC Batch: 63461 Date Analyzed: 2009-09-11 Analyzed By: RR  
Prep Batch: 54153 QC Preparation: 2009-09-11 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Dissolved Chromium		<0.000583	mg/L	0.000583

**Method Blank (1)**

QC Batch: 63485 Date Analyzed: 2009-09-11 Analyzed By: KV  
Prep Batch: 54188 QC Preparation: 2009-09-11 Prepared By: KV

Parameter	Flag	Result	Units	Reporting Limits
Nitrate and Nitrite as N		<0.0350	mg/L	0.035

**Duplicate (1)** Duplicated Sample: 208427QC Batch: 63082  
Prep Batch: 53841Date Analyzed: 2009-08-27  
QC Preparation: 2009-08-27Analyzed By: JG  
Prepared By: JG

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH	7.33	7.33	s.u.	1	0	1.1

**Duplicate (1)** Duplicated Sample: 208087QC Batch: 63272  
Prep Batch: 54007Date Analyzed: 2009-09-01  
QC Preparation: 2009-09-01Analyzed By: MD  
Prepared By: MD

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	16000	15800	mg/L	1	1	10

**Duplicate (1)** Duplicated Sample: 208085QC Batch: 63379  
Prep Batch: 54095Date Analyzed: 2009-09-08  
QC Preparation: 2009-09-08Analyzed By: JG  
Prepared By: JG

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Carbonate Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Bicarbonate Alkalinity	164	160	mg/L as CaCo3	1	2	20
Total Alkalinity	164	160	mg/L as CaCo3	1	2	20

**Laboratory Control Spike (LCS-1)**QC Batch: 63025  
Prep Batch: 53796Date Analyzed: 2009-08-28  
QC Preparation: 2009-08-28Analyzed By: ER  
Prepared By: ER

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	0.954	mg/L	1	1.00	<0.0702	95	74.6 - 119

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	1.02	mg/L	1	1.00	<0.0702	102	74.6 - 119	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0993	0.0977	mg/L	1	0.100	99	98	77.8 - 114
4-Bromofluorobenzene (4-BFB)	0.0888	0.0853	mg/L	1	0.100	89	85	80.3 - 111

**Laboratory Control Spike (LCS-1)**

QC Batch: 63042

Date Analyzed: 2009-08-28

Analyzed By:

Prep Batch: 53812

QC Preparation: 2009-08-28

Prepared By:

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	31.0	mg/L	1	25.0	<0.876	124	74.3 - 158

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	30.0	mg/L	1	25.0	<0.876	120	74.3 - 158	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	8.97	8.78	mg/L	1	10.0	90	88	34.4 - 149

**Laboratory Control Spike (LCS-1)**

QC Batch: 63072

Date Analyzed: 2009-08-31

Analyzed By: TP

Prep Batch: 53821

QC Preparation: 2009-08-31

Prepared By: TP

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Mercury	0.000930	mg/L	1	0.00100	<0.0000329	93	90.3 - 108

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Mercury	0.000940	mg/L	1	0.00100	<0.0000329	94	90.3 - 108	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Laboratory Control Spike (LCS-1)**

QC Batch: 63142

Date Analyzed: 2009-09-01

Analyzed By: DS

Prep Batch: 53897

QC Preparation: 2009-09-01

Prepared By: DS



Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
HMX	2.49	µg/L	1	2.50	<0.123	100	63.5 - 125
RDX	2.34	µg/L	1	2.50	<0.298	94	74.5 - 124
1,3,5-Trinitrobenzene	2.37	µg/L	1	2.50	<0.339	95	54.1 - 131
1,3-Dinitrobenzene	2.45	µg/L	1	2.50	<0.389	98	72 - 112
Nitrobenzene	2.49	µg/L	1	2.50	<0.379	100	72.5 - 126
Tetryl	2.27	µg/L	1	2.50	<0.413	91	35.9 - 149
TNT	2.45	µg/L	1	2.50	<0.464	98	40.7 - 129
4-Amino-DNT	2.41	µg/L	1	2.50	<0.319	96	80 - 120
2-Amino-DNT	2.50	µg/L	1	2.50	<0.391	100	80 - 120
2,6-DNT	2.05	µg/L	1	2.50	<0.323	82	80 - 120
2,4-DNT	2.48	µg/L	1	2.50	<0.366	99	80 - 120
2-NT	2.33	µg/L	1	2.50	<0.379	93	49.8 - 139
4-NT	2.26	µg/L	1	2.50	<0.398	90	56.3 - 141
3-NT	2.19	µg/L	1	2.50	<0.346	88	66.2 - 129

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
HMX	2.58	µg/L	1	2.50	<0.123	103	63.5 - 125	4	20
RDX	2.49	µg/L	1	2.50	<0.298	100	74.5 - 124	6	20
1,3,5-Trinitrobenzene	2.40	µg/L	1	2.50	<0.339	96	54.1 - 131	1	20
1,3-Dinitrobenzene	2.47	µg/L	1	2.50	<0.389	99	72 - 112	1	20
Nitrobenzene	2.49	µg/L	1	2.50	<0.379	100	72.5 - 126	0	20
Tetryl	2.35	µg/L	1	2.50	<0.413	94	35.9 - 149	4	20
TNT	2.52	µg/L	1	2.50	<0.464	101	40.7 - 129	3	20
4-Amino-DNT	2.51	µg/L	1	2.50	<0.319	100	80 - 120	4	20
2-Amino-DNT	2.70	µg/L	1	2.50	<0.391	108	80 - 120	8	20
2,6-DNT	2.31	µg/L	1	2.50	<0.323	92	80 - 120	12	20
2,4-DNT	2.67	µg/L	1	2.50	<0.366	107	80 - 120	7	20
2-NT	2.37	µg/L	1	2.50	<0.379	95	49.8 - 139	2	20
4-NT	2.15	µg/L	1	2.50	<0.398	86	56.3 - 141	5	20
3-NT	2.45	µg/L	1	2.50	<0.346	98	66.2 - 129	11	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
1,2-Dinitrobenzene	2.39	2.34	µg/L	1	2.50	96	94	53 - 134

### Laboratory Control Spike (LCS-1)

QC Batch: 63221  
Prep Batch: 53951

Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Silver	0.124	mg/L	1	0.125	<0.00111	99	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Silver	0.124	mg/L	1	0.125	<0.00111	99	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Laboratory Control Spike (LCS-1)

QC Batch: 63221  
Prep Batch: 53951

Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Aluminum	0.953	mg/L	1	1.00	<0.00301	95	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Aluminum	0.951	mg/L	1	1.00	<0.00301	95	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Laboratory Control Spike (LCS-1)

QC Batch: 63221  
Prep Batch: 53951

Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Arsenic	0.478	mg/L	1	0.500	<0.00448	96	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Arsenic	0.476	mg/L	1	0.500	<0.00448	95	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Laboratory Control Spike (LCS-1)

QC Batch: 63221  
Prep Batch: 53951

Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Barium	1.03	mg/L	1	1.00	<0.00105	103	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Barium	1.03	mg/L	1	1.00	<0.00105	103	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Laboratory Control Spike (LCS-1)

QC Batch: 63221  
Prep Batch: 53951

Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Beryllium	0.0248	mg/L	1	0.0250	<0.000450	99	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Beryllium	0.0256	mg/L	1	0.0250	<0.000450	102	85 - 115	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Laboratory Control Spike (LCS-1)

QC Batch: 63221  
Prep Batch: 53951

Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Cadmium	0.250	mg/L	1	0.250	<0.000303	100	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Cadmium	0.250	mg/L	1	0.250	<0.000303	100	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Laboratory Control Spike (LCS-1)

QC Batch: 63221  
Prep Batch: 53951

Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Cobalt	0.246	mg/L	1	0.250	<0.000822	98	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Cobalt	0.246	mg/L	1	0.250	<0.000822	98	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Laboratory Control Spike (LCS-1)

QC Batch: 63221  
Prep Batch: 53951

Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Chromium	0.0985	mg/L	1	0.100	<0.000583	98	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Chromium	0.0980	mg/L	1	0.100	<0.000583	98	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Laboratory Control Spike (LCS-1)

QC Batch: 63221  
Prep Batch: 53951

Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Copper	0.131	mg/L	1	0.125	<0.000843	105	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Copper	0.133	mg/L	1	0.125	<0.000843	106	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Laboratory Control Spike (LCS-1)

QC Batch: 63221  
Prep Batch: 53951

Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Iron	0.570	mg/L	1	0.500	<0.000872	114	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Iron	0.516	mg/L	1	0.500	<0.000872	103	85 - 115	10	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Laboratory Control Spike (LCS-1)

QC Batch: 63221  
Prep Batch: 53951

Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Manganese	0.253	mg/L	1	0.250	<0.000305	101	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Manganese	0.254	mg/L	1	0.250	<0.000305	102	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Laboratory Control Spike (LCS-1)

QC Batch: 63221  
Prep Batch: 53951

Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Molybdenum	0.544	mg/L	1	0.500	<0.00119	109	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Molybdenum	0.543	mg/L	1	0.500	<0.00119	109	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Laboratory Control Spike (LCS-1)

QC Batch: 63221  
Prep Batch: 53951

Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Nickel	0.252	mg/L	1	0.250	<0.00121	101	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Nickel	0.251	mg/L	1	0.250	<0.00121	100	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Laboratory Control Spike (LCS-1)

QC Batch: 63221  
Prep Batch: 53951

Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Phosphorous	0.473	mg/L	1	0.500	<0.00289	95	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Phosphorous	0.470	mg/L	1	0.500	<0.00289	94	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Laboratory Control Spike (LCS-1)

QC Batch: 63221  
Prep Batch: 53951

Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Lead	0.468	mg/L	1	0.500	<0.00326	94	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Lead	0.464	mg/L	1	0.500	<0.00326	93	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Laboratory Control Spike (LCS-1)

QC Batch: 63221  
Prep Batch: 53951

Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Antimony	0.249	mg/L	1	0.250	<0.00440	100	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Antimony	0.248	mg/L	1	0.250	<0.00440	99	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Laboratory Control Spike (LCS-1)

QC Batch: 63221  
Prep Batch: 53951

Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Selenium	0.442	mg/L	1	0.500	<0.00508	88	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Selenium	0.443	mg/L	1	0.500	<0.00508	89	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Laboratory Control Spike (LCS-1)

QC Batch: 63221  
Prep Batch: 53951

Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Thallium	0.503	mg/L	1	0.500	<0.00488	101	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Thallium	0.503	mg/L	1	0.500	<0.00488	101	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Laboratory Control Spike (LCS-1)

QC Batch: 63221  
Prep Batch: 53951

Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Vanadium	0.246	mg/L	1	0.250	<0.000426	98	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Vanadium	0.248	mg/L	1	0.250	<0.000426	99	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Laboratory Control Spike (LCS-1)

QC Batch: 63221  
Prep Batch: 53951

Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Zinc	0.251	mg/L	1	0.250	<0.000465	100	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Zinc	0.253	mg/L	1	0.250	<0.000465	101	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Laboratory Control Spike (LCS-1)

QC Batch: 63249  
Prep Batch: 53984

Date Analyzed: 2009-08-31  
QC Preparation: 2009-08-31

Analyzed By: SS  
Prepared By: SS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Bromide	5.06	mg/L	1	5.00	<0.192	101	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Bromide	4.95	mg/L	1	5.00	<0.192	99	90 - 110	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Laboratory Control Spike (LCS-1)

QC Batch: 63249  
Prep Batch: 53984

Date Analyzed: 2009-08-31  
QC Preparation: 2009-08-31

Analyzed By: SS  
Prepared By: SS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	23.8	mg/L	1	25.0	<0.157	95	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.



Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	23.9	mg/L	1	25.0	<0.157	96	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Laboratory Control Spike (LCS-1)

QC Batch: 63249  
Prep Batch: 53984

Date Analyzed: 2009-08-31  
QC Preparation: 2009-08-31

Analyzed By: SS  
Prepared By: SS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Fluoride	5.44	mg/L	1	5.00	<0.204	109	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Fluoride	5.38	mg/L	1	5.00	<0.204	108	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Laboratory Control Spike (LCS-1)

QC Batch: 63249  
Prep Batch: 53984

Date Analyzed: 2009-08-31  
QC Preparation: 2009-08-31

Analyzed By: SS  
Prepared By: SS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate	24.2	mg/L	1	25.0	<0.153	97	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate	24.1	mg/L	1	25.0	<0.153	96	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Laboratory Control Spike (LCS-1)

QC Batch: 63261  
Prep Batch: 53996

Date Analyzed: 2009-09-04  
QC Preparation: 2009-09-02

Analyzed By: MN  
Prepared By: MN

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Phenol	0.0205	mg/L	1	0.0800	<0.000509	26	10 - 66.5
2-Chlorophenol	0.0411	mg/L	1	0.0800	<0.000537	51	11.2 - 108
1,4-Dichlorobenzene (para)	0.0378	mg/L	1	0.0800	<0.000440	47	16 - 101

*continued ...*

*control spikes continued . . .*

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
N-Nitrosodi-n-propylamine	0.0474	mg/L	1	0.0800	<0.000732	59	10 - 142
1,2,4-Trichlorobenzene	0.0389	mg/L	1	0.0800	<0.000404	49	18 - 118
Naphthalene	0.0410	mg/L	1	0.0800	<0.000489	51	20.2 - 114
4-Chloro-3-methylphenol	0.0507	mg/L	1	0.0800	<0.000522	63	21.5 - 125
Acenaphthylene	0.0474	mg/L	1	0.0800	<0.000586	59	25.8 - 121
Acenaphthene	0.0474	mg/L	1	0.0800	<0.000423	59	33.5 - 122
4-Nitrophenol	0.0191	mg/L	1	0.0800	<0.00185	24	10 - 125
2,4-Dinitrotoluene	0.0543	mg/L	1	0.0800	<0.000911	68	53 - 130
Fluorene	0.0494	mg/L	1	0.0800	<0.000648	62	44.6 - 117
Pentachlorophenol	0.0373	mg/L	1	0.0800	<0.000435	47	10 - 139
Anthracene	0.0511	mg/L	1	0.0800	<0.000428	64	57.5 - 115
Phenanthrene	0.0509	mg/L	1	0.0800	<0.000548	64	55.5 - 118
Fluoranthene	0.0545	mg/L	1	0.0800	<0.000632	68	57 - 122
Pyrene	0.0468	mg/L	1	0.0800	<0.000723	58	58.5 - 130
Benzo(a)anthracene	<sup>1</sup> 0.0463	mg/L	1	0.0800	<0.000527	58	63.4 - 109
Chrysene	0.0508	mg/L	1	0.0800	<0.000638	64	54.7 - 114
Benzo(b)fluoranthene	<sup>2</sup> 0.0477	mg/L	1	0.0800	<0.000879	60	64.8 - 120
Benzo(k)fluoranthene	0.0619	mg/L	1	0.0800	<0.000845	77	70.3 - 114
Benzo(a)pyrene	0.0575	mg/L	1	0.0800	<0.00167	72	63.7 - 120
Indeno(1,2,3-cd)pyrene	0.0568	mg/L	1	0.0800	<0.000862	71	65.4 - 119
Dibenzo(a,h)anthracene	0.0572	mg/L	1	0.0800	<0.000809	72	68.7 - 117
Benzo(g,h,i)perylene	0.0598	mg/L	1	0.0800	<0.000949	75	57.2 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Phenol	0.0210	mg/L	1	0.0800	<0.000509	26	10 - 66.5	2	20
2-Chlorophenol	0.0432	mg/L	1	0.0800	<0.000537	54	11.2 - 108	5	20
1,4-Dichlorobenzene (para)	0.0398	mg/L	1	0.0800	<0.000440	50	16 - 101	5	20
N-Nitrosodi-n-propylamine	0.0506	mg/L	1	0.0800	<0.000732	63	10 - 142	6	20
1,2,4-Trichlorobenzene	0.0413	mg/L	1	0.0800	<0.000404	52	18 - 118	6	20
Naphthalene	0.0436	mg/L	1	0.0800	<0.000489	54	20.2 - 114	6	20
4-Chloro-3-methylphenol	0.0534	mg/L	1	0.0800	<0.000522	67	21.5 - 125	5	20
Acenaphthylene	0.0515	mg/L	1	0.0800	<0.000586	64	25.8 - 121	8	20
Acenaphthene	0.0505	mg/L	1	0.0800	<0.000423	63	33.5 - 122	6	20
4-Nitrophenol	0.0220	mg/L	1	0.0800	<0.00185	28	10 - 125	14	20
2,4-Dinitrotoluene	0.0577	mg/L	1	0.0800	<0.000911	72	53 - 130	6	20
Fluorene	0.0533	mg/L	1	0.0800	<0.000648	67	44.6 - 117	8	20
Pentachlorophenol	0.0388	mg/L	1	0.0800	<0.000435	48	10 - 139	4	20
Anthracene	0.0530	mg/L	1	0.0800	<0.000428	66	57.5 - 115	4	20
Phenanthrene	0.0521	mg/L	1	0.0800	<0.000548	65	55.5 - 118	2	20
Fluoranthene	0.0564	mg/L	1	0.0800	<0.000632	70	57 - 122	3	20
Pyrene	0.0495	mg/L	1	0.0800	<0.000723	62	58.5 - 130	6	20
Benzo(a)anthracene	<sup>3</sup> 0.0486	mg/L	1	0.0800	<0.000527	61	63.4 - 109	5	20

*continued . . .*<sup>1</sup> Spike analyte out of control limits. Results biased low. •<sup>2</sup> Spike analyte out of control limits. Results biased low. •<sup>3</sup> Spike analyte out of control limits. Results biased low. •

*control spikes continued . . .*

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chrysene	0.0541	mg/L	1	0.0800	<0.000638	68	54.7 - 114	6	20
Benzo(b)fluoranthene	0.0533	mg/L	1	0.0800	<0.000879	67	64.8 - 120	11	20
Benzo(k)fluoranthene	0.0696	mg/L	1	0.0800	<0.000845	87	70.3 - 114	12	20
Benzo(a)pyrene	0.0630	mg/L	1	0.0800	<0.00167	79	63.7 - 120	9	20
Indeno(1,2,3-cd)pyrene	0.0615	mg/L	1	0.0800	<0.000862	77	65.4 - 119	8	20
Dibenzo(a,h)anthracene	0.0630	mg/L	1	0.0800	<0.000809	79	68.7 - 117	10	20
Benzo(g,h,i)perylene	0.0643	mg/L	1	0.0800	<0.000949	80	57.2 - 125	7	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
2-Fluorophenol	0.0260	0.0278	mg/L	1	0.0800	32	35	10 - 53.1
Phenol-d5	0.0198	0.0210	mg/L	1	0.0800	25	26	10 - 36.9
Nitrobenzene-d5	0.0419	0.0439	mg/L	1	0.0800	52	55	23.8 - 108
2-Fluorobiphenyl	0.0429	0.0466	mg/L	1	0.0800	54	58	15.9 - 127
2,4,6-Tribromophenol	0.0565	0.0609	mg/L	1	0.0800	71	76	10 - 123
Terphenyl-d14	0.0461	0.0494	mg/L	1	0.0800	58	62	17.2 - 160

**Laboratory Control Spike (LCS-1)**

QC Batch: 63340  
Prep Batch: 54065

Date Analyzed: 2009-09-08  
QC Preparation: 2009-09-08

Analyzed By: KV  
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Organic Carbon	48.4	mg/L	1	50.0	<0.401	97	89.5 - 114

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Organic Carbon	49.4	mg/L	1	50.0	<0.401	99	89.5 - 114	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Laboratory Control Spike (LCS-1)**

QC Batch: 63355  
Prep Batch: 53951

Date Analyzed: 2009-09-09  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Calcium	54.2	mg/L	1	50.0	<0.117	108	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Calcium	50.5	mg/L	1	50.0	<0.117	101	85 - 115	7	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Laboratory Control Spike (LCS-1)**

QC Batch: 63355  
Prep Batch: 53951

Date Analyzed: 2009-09-09  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Potassium	53.3	mg/L	1	50.0	<0.172	107	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Potassium	50.2	mg/L	1	50.0	<0.172	100	85 - 115	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Laboratory Control Spike (LCS-1)**

QC Batch: 63355  
Prep Batch: 53951

Date Analyzed: 2009-09-09  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Magnesium	52.2	mg/L	1	50.0	<0.160	104	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Magnesium	50.1	mg/L	1	50.0	<0.160	100	85 - 115	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Laboratory Control Spike (LCS-1)**

QC Batch: 63355  
Prep Batch: 53951

Date Analyzed: 2009-09-09  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Sodium	53.2	mg/L	1	50.0	<0.0500	106	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Sodium	50.6	mg/L	1	50.0	<0.0500	101	85 - 115	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Laboratory Control Spike (LCS-1)**

QC Batch: 63411 Date Analyzed: 2009-09-09 Analyzed By: MD  
Prep Batch: 54129 QC Preparation: 2009-09-08 Prepared By: MD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Oil and Grease	<sup>4</sup> 18.3	mg/L	1	40.0	<3.60	46	78 - 114

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Oil and Grease	<sup>5</sup> 17.4	mg/L	1	40.0	<3.60	44	78 - 114	5	18

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Laboratory Control Spike (LCS-1)**

QC Batch: 63461 Date Analyzed: 2009-09-11 Analyzed By: RR  
Prep Batch: 54153 QC Preparation: 2009-09-11 Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Chromium	0.0990	mg/L	1	0.100	<0.000583	99	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Chromium	0.0950	mg/L	1	0.100	<0.000583	95	85 - 115	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 208427

QC Batch: 63015 Date Analyzed: 2009-08-27 Analyzed By: MD  
Prep Batch: 53776 QC Preparation: 2009-08-27 Prepared By: MD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Hexavalent Chromium	0.588	mg/L	1.11	0.556	<0.00659	105	80.1 - 118

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

<sup>4</sup>SPECIAL: Sodium Sulfate may have caused low LCS, LCSD, and MS recovery. Results may be biased low. •

<sup>5</sup>SPECIAL: Sodium Sulfate may have caused low LCS, LCSD, and MS recovery. Samples may be biased low. •

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Hexavalent Chromium	0.586	mg/L	1.11	0.556	<0.00659	104	80.1 - 118	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 208408

QC Batch: 63025  
Prep Batch: 53796

Date Analyzed: 2009-08-28  
QC Preparation: 2009-08-28

Analyzed By: ER  
Prepared By: ER

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	0.920	mg/L	1	1.00	<0.0702	92	59.4 - 128

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	0.932	mg/L	1	1.00	<0.0702	93	59.4 - 128	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0931	0.0870	mg/L	1	0.1	93	87	62.8 - 128
4-Bromofluorobenzene (4-BFB)	0.0836	0.0797	mg/L	1	0.1	84	80	68.3 - 121

**Matrix Spike (MS-1)** Spiked Sample: 208427

QC Batch: 63042  
Prep Batch: 53812

Date Analyzed: 2009-08-28  
QC Preparation: 2009-08-28

Analyzed By:  
Prepared By:

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	26.2	mg/L	1	25.0	<0.876	105	29.8 - 181

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	27.3	mg/L	1	25.0	<0.876	109	29.8 - 181	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	8.56	8.80	mg/L	1	10	86	88	34.4 - 185

**Matrix Spike (MS-1)** Spiked Sample: 208408QC Batch: 63072  
Prep Batch: 53821Date Analyzed: 2009-08-31  
QC Preparation: 2009-08-31Analyzed By: TP  
Prepared By: TP

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Mercury	0.000930	mg/L	1	0.00100	<0.0000329	93	80 - 116

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Mercury	0.000930	mg/L	1	0.00100	<0.0000329	93	80 - 116	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 208427QC Batch: 63080  
Prep Batch: 53840Date Analyzed: 2009-08-31  
QC Preparation: 2009-08-31Analyzed By: AH  
Prepared By: AH

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Cyanide	0.129	mg/L	1	0.120	<0.0110	108	66.3 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Cyanide	0.135	mg/L	1	0.120	<0.0110	112	66.3 - 125	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 208427QC Batch: 63111  
Prep Batch: 53864Date Analyzed: 2009-08-31  
QC Preparation: 2009-08-31Analyzed By: AH  
Prepared By: AH

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Ammonia-N	5.77	mg/L	1	5.00	0.392	108	57.2 - 133

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Ammonia-N	5.32	mg/L	1	5.00	0.392	98	57.2 - 133	8	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 208408QC Batch: 63142  
Prep Batch: 53897Date Analyzed: 2009-09-01  
QC Preparation: 2009-09-01Analyzed By: DS  
Prepared By: DS

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
HMX		1.60	µg/L	1	2.50	<0.123	64	10 - 164
RDX		1.86	µg/L	1	2.50	<0.298	74	10 - 147
1,3,5-Trinitrobenzene		1.64	µg/L	1	2.50	<0.339	66	10 - 187
1,3-Dinitrobenzene		1.82	µg/L	1	2.50	<0.389	73	10 - 155
Nitrobenzene		1.34	µg/L	1	2.50	<0.379	54	10 - 156
Tetryl		1.63	µg/L	1	2.50	<0.413	65	10 - 158
TNT		1.77	µg/L	1	2.50	<0.464	71	21 - 114
4-Amino-DNT	<sup>6</sup>	1.68	µg/L	1	2.50	<0.319	67	80 - 120
2-Amino-DNT	<sup>7</sup>	1.77	µg/L	1	2.50	<0.391	71	80 - 120
2,6-DNT	<sup>8</sup>	1.60	µg/L	1	2.50	<0.323	64	80 - 120
2,4-DNT	<sup>9</sup>	1.80	µg/L	1	2.50	<0.366	72	80 - 120
2-NT	<sup>10</sup>	5.04	µg/L	1	2.50	<0.379	202	10 - 147
4-NT		1.40	µg/L	1	2.50	<0.398	56	10 - 161
3-NT		1.28	µg/L	1	2.50	<0.346	51	10 - 167

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
HMX		1.66	µg/L	1	2.50	<0.123	66	10 - 164	4	20
RDX		1.76	µg/L	1	2.50	<0.298	70	10 - 147	6	20
1,3,5-Trinitrobenzene		1.92	µg/L	1	2.50	<0.339	77	10 - 187	16	20
1,3-Dinitrobenzene		1.94	µg/L	1	2.50	<0.389	78	10 - 155	6	20
Nitrobenzene		1.39	µg/L	1	2.50	<0.379	56	10 - 156	4	20
Tetryl		1.56	µg/L	1	2.50	<0.413	62	10 - 158	4	20
TNT		1.83	µg/L	1	2.50	<0.464	73	21 - 114	3	20
4-Amino-DNT	<sup>11</sup>	1.71	µg/L	1	2.50	<0.319	68	80 - 120	2	20
2-Amino-DNT	<sup>12</sup>	1.98	µg/L	1	2.50	<0.391	79	80 - 120	11	20
2,6-DNT	<sup>13</sup>	1.70	µg/L	1	2.50	<0.323	68	80 - 120	6	20
2,4-DNT	<sup>14</sup>	1.88	µg/L	1	2.50	<0.366	75	80 - 120	4	20
2-NT	<sup>15</sup>	5.10	µg/L	1	2.50	<0.379	204	10 - 147	1	20
4-NT		1.36	µg/L	1	2.50	<0.398	54	10 - 161	3	20
3-NT		1.24	µg/L	1	2.50	<0.346	50	10 - 167	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

<sup>6</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.<sup>7</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.<sup>8</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.<sup>9</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.<sup>10</sup>Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.<sup>11</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.<sup>12</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.<sup>13</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.<sup>14</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.<sup>15</sup>Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.



Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
1,2-Dinitrobenzene	1.73	1.76	µg/L	1	2.5	69	70	10 - 222

**Matrix Spike (MS-1)** Spiked Sample: 208408QC Batch: 63221  
Prep Batch: 53951Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03Analyzed By: RR  
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Silver	0.137	mg/L	1	0.125	<0.00111	110	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Silver	0.135	mg/L	1	0.125	<0.00111	108	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 208408QC Batch: 63221  
Prep Batch: 53951Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03Analyzed By: RR  
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Aluminum	1.26	mg/L	1	1.00	0.065	120	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Aluminum	1.24	mg/L	1	1.00	0.065	118	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 208408QC Batch: 63221  
Prep Batch: 53951Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03Analyzed By: RR  
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Arsenic	0.506	mg/L	1	0.500	<0.00448	101	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Arsenic	0.496	mg/L	1	0.500	<0.00448	99	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 208408

QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
Prep Batch: 53951 QC Preparation: 2009-09-03 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Barium	1.00	mg/L	1	1.00	0.008	99	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Barium	0.988	mg/L	1	1.00	0.008	98	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 208408

QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
Prep Batch: 53951 QC Preparation: 2009-09-03 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Beryllium	0.0254	mg/L	1	0.0250	<0.000450	102	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Beryllium	0.0247	mg/L	1	0.0250	<0.000450	99	75 - 125	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 208408

QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
Prep Batch: 53951 QC Preparation: 2009-09-03 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Cadmium	0.227	mg/L	1	0.250	<0.000303	91	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Cadmium	0.222	mg/L	1	0.250	<0.000303	89	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 208408

QC Batch: 63221  
Prep Batch: 53951

Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Cobalt	0.230	mg/L	1	0.250	<0.000822	92	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Cobalt	0.226	mg/L	1	0.250	<0.000822	90	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 208408

QC Batch: 63221  
Prep Batch: 53951

Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Chromium	0.111	mg/L	1	0.100	0.015	96	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Chromium	0.108	mg/L	1	0.100	0.015	93	75 - 125	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 208408

QC Batch: 63221  
Prep Batch: 53951

Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Copper	0.144	mg/L	1	0.125	<0.000843	115	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Copper	0.140	mg/L	1	0.125	<0.000843	112	75 - 125	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 208408

QC Batch: 63221  
Prep Batch: 53951

Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Iron	0.488	mg/L	1	0.500	<0.000872	98	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Iron	0.462	mg/L	1	0.500	<0.000872	92	75 - 125	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 208408

QC Batch: 63221  
Prep Batch: 53951

Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Manganese	0.235	mg/L	1	0.250	<0.000305	94	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Manganese	0.231	mg/L	1	0.250	<0.000305	92	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 208408

QC Batch: 63221  
Prep Batch: 53951

Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Molybdenum	0.771	mg/L	1	0.500	0.211	112	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Molybdenum	0.758	mg/L	1	0.500	0.211	109	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 208408

QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
Prep Batch: 53951 QC Preparation: 2009-09-03 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Nickel	0.230	mg/L	1	0.250	<0.00121	92	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Nickel	0.225	mg/L	1	0.250	<0.00121	90	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 208408

QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
Prep Batch: 53951 QC Preparation: 2009-09-03 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Phosphorous	0.493	mg/L	1	0.500	0.004	98	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Phosphorous	0.485	mg/L	1	0.500	0.004	96	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 208408

QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
Prep Batch: 53951 QC Preparation: 2009-09-03 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Lead	0.412	mg/L	1	0.500	<0.00326	82	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Lead	0.403	mg/L	1	0.500	<0.00326	81	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 208408

QC Batch: 63221  
Prep Batch: 53951

Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Antimony	0.246	mg/L	1	0.250	<0.00440	98	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Antimony	0.242	mg/L	1	0.250	<0.00440	97	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 208408

QC Batch: 63221  
Prep Batch: 53951

Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Selenium	0.502	mg/L	1	0.500	<0.00508	100	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Selenium	0.487	mg/L	1	0.500	<0.00508	97	75 - 125	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 208408

QC Batch: 63221  
Prep Batch: 53951

Date Analyzed: 2009-09-03  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Thallium	0.439	mg/L	1	0.500	<0.00488	88	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Thallium	0.437	mg/L	1	0.500	<0.00488	87	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 208408

QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
Prep Batch: 53951 QC Preparation: 2009-09-03 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Vanadium	0.265	mg/L	1	0.250	0.017	99	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Vanadium	0.260	mg/L	1	0.250	0.017	97	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 208408

QC Batch: 63221 Date Analyzed: 2009-09-03 Analyzed By: RR  
Prep Batch: 53951 QC Preparation: 2009-09-03 Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Zinc	0.258	mg/L	1	0.250	<0.000465	103	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Zinc	0.253	mg/L	1	0.250	<0.000465	101	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 208666

QC Batch: 63249 Date Analyzed: 2009-08-31 Analyzed By: SS  
Prep Batch: 53984 QC Preparation: 2009-08-31 Prepared By: SS

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Bromide	276	mg/L	50	250	<9.60	110	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Bromide	275	mg/L	50	250	<9.60	110	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 208666

QC Batch: 63249 Date Analyzed: 2009-08-31 Analyzed By: SS  
Prep Batch: 53984 QC Preparation: 2009-08-31 Prepared By: SS

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	<sup>16</sup> 2130	mg/L	50	1250	<7.85	170	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	<sup>17</sup> 2150	mg/L	50	1250	<7.85	172	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 208666

QC Batch: 63249 Date Analyzed: 2009-08-31 Analyzed By: SS  
Prep Batch: 53984 QC Preparation: 2009-08-31 Prepared By: SS

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Fluoride	<sup>18</sup> 321	mg/L	50	250	<10.2	128	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Fluoride	<sup>19</sup> 334	mg/L	50	250	<10.2	134	90 - 110	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 208666

QC Batch: 63249 Date Analyzed: 2009-08-31 Analyzed By: SS  
Prep Batch: 53984 QC Preparation: 2009-08-31 Prepared By: SS

<sup>16</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

<sup>17</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

<sup>18</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

<sup>19</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.



Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate	<sup>20</sup> 5060	mg/L	50	1250	3460	128	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate	<sup>21</sup> 5100	mg/L	50	1250	3460	131	90 - 110	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

### Matrix Spike (MS-1)      Spiked Sample: 208408

QC Batch: 63261  
Prep Batch: 53996

Date Analyzed: 2009-09-04  
QC Preparation: 2009-09-02

Analyzed By: MN  
Prepared By: MN

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Phenol	0.0194	mg/L	1.02	0.0800	<0.000519	24	10 - 66.5
2-Chlorophenol	0.0437	mg/L	1.02	0.0800	<0.000548	55	11.2 - 108
1,4-Dichlorobenzene (para)	0.0354	mg/L	1.02	0.0800	<0.000449	44	16 - 101
N-Nitrosodi-n-propylamine	0.0490	mg/L	1.02	0.0800	<0.000747	61	10 - 142
1,2,4-Trichlorobenzene	0.0389	mg/L	1.02	0.0800	<0.000412	49	18 - 108
Naphthalene	0.0420	mg/L	1.02	0.0800	<0.000499	52	20.2 - 114
4-Chloro-3-methylphenol	0.0558	mg/L	1.02	0.0800	<0.000532	70	21.5 - 125
Acenaphthylene	0.0543	mg/L	1.02	0.0800	<0.000598	68	25.8 - 121
Acenaphthene	0.0538	mg/L	1.02	0.0800	<0.000431	67	33.5 - 122
4-Nitrophenol	0.0218	mg/L	1.02	0.0800	<0.00189	27	10 - 125
2,4-Dinitrotoluene	0.0604	mg/L	1.02	0.0800	<0.000929	76	53 - 130
Fluorene	0.0572	mg/L	1.02	0.0800	<0.000661	72	44.6 - 117
Pentachlorophenol	0.0394	mg/L	1.02	0.0800	<0.000444	49	10 - 139
Anthracene	0.0557	mg/L	1.02	0.0800	<0.000436	70	57.5 - 115
Phenanthrene	0.0558	mg/L	1.02	0.0800	<0.000559	70	55.5 - 118
Fluoranthene	0.0588	mg/L	1.02	0.0800	<0.000645	74	57 - 122
Pyrene	0.0524	mg/L	1.02	0.0800	<0.000737	66	58.5 - 130
Benzo(a)anthracene	0.0508	mg/L	1.02	0.0800	<0.000538	64	63.4 - 109
Chrysene	0.0568	mg/L	1.02	0.0800	<0.000651	71	54.7 - 114
Benzo(b)fluoranthene	0.0546	mg/L	1.02	0.0800	<0.000896	68	64.8 - 120
Benzo(k)fluoranthene	0.0721	mg/L	1.02	0.0800	<0.000862	90	70.3 - 114
Benzo(a)pyrene	0.0675	mg/L	1.02	0.0800	<0.00170	84	63.7 - 120
Indeno(1,2,3-cd)pyrene	0.0643	mg/L	1.02	0.0800	<0.000879	80	65.4 - 119
Dibenzo(a,h)anthracene	0.0634	mg/L	1.02	0.0800	<0.000825	79	68.7 - 117
Benzo(g,h,i)perylene	0.0664	mg/L	1.02	0.0800	<0.000968	83	57.2 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

*continued ...*

<sup>20</sup> Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

<sup>21</sup> Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

*matrix spikes continued . . .*

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Phenol	0.0182	mg/L	1.02	0.0800	<0.000519	23	10 - 66.5	6	20
2-Chlorophenol	0.0398	mg/L	1.02	0.0800	<0.000548	50	11.2 - 108	9	20
1,4-Dichlorobenzene (para)	0.0317	mg/L	1.02	0.0800	<0.000449	40	16 - 101	11	20
N-Nitrosodi-n-propylamine	0.0465	mg/L	1.02	0.0800	<0.000747	58	10 - 142	5	20
1,2,4-Trichlorobenzene	0.0344	mg/L	1.02	0.0800	<0.000412	43	18 - 108	12	20
Naphthalene	0.0363	mg/L	1.02	0.0800	<0.000499	45	20.2 - 114	15	20
4-Chloro-3-methylphenol	0.0496	mg/L	1.02	0.0800	<0.000532	62	21.5 - 125	12	20
Acenaphthylene	0.0479	mg/L	1.02	0.0800	<0.000598	60	25.8 - 121	12	20
Acenaphthene	0.0468	mg/L	1.02	0.0800	<0.000431	58	33.5 - 122	14	20
4-Nitrophenol	0.0200	mg/L	1.02	0.0800	<0.00189	25	10 - 125	9	20
2,4-Dinitrotoluene	0.0526	mg/L	1.02	0.0800	<0.000929	66	53 - 130	14	20
Fluorene	0.0497	mg/L	1.02	0.0800	<0.000661	62	44.6 - 117	14	20
Pentachlorophenol	0.0358	mg/L	1.02	0.0800	<0.000444	45	10 - 139	10	20
Anthracene	0.0503	mg/L	1.02	0.0800	<0.000436	63	57.5 - 115	10	20
Phenanthrene	0.0492	mg/L	1.02	0.0800	<0.000559	62	55.5 - 118	13	20
Fluoranthene	0.0537	mg/L	1.02	0.0800	<0.000645	67	57 - 122	9	20
Pyrene	<sup>22</sup> 0.0457	mg/L	1.02	0.0800	<0.000737	57	58.5 - 130	14	20
Benzo(a)anthracene	<sup>23</sup> 0.0446	mg/L	1.02	0.0800	<0.000538	56	63.4 - 109	13	20
Chrysene	0.0485	mg/L	1.02	0.0800	<0.000651	61	54.7 - 114	16	20
Benzo(b)fluoranthene	0.0528	mg/L	1.02	0.0800	<0.000896	66	64.8 - 120	3	20
Benzo(k)fluoranthene	<sup>24</sup> 0.0573	mg/L	1.02	0.0800	<0.000862	72	70.3 - 114	23	20
Benzo(a)pyrene	0.0589	mg/L	1.02	0.0800	<0.00170	74	63.7 - 120	14	20
Indeno(1,2,3-cd)pyrene	0.0540	mg/L	1.02	0.0800	<0.000879	68	65.4 - 119	17	20
Dibenzo(a,h)anthracene	<sup>25</sup> 0.0536	mg/L	1.02	0.0800	<0.000825	67	68.7 - 117	17	20
Benzo(g,h,i)perylene	0.0557	mg/L	1.02	0.0800	<0.000968	70	57.2 - 125	18	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
2-Fluorophenol	0.0262	0.0254	mg/L	1.02	0.08	33	32	10 - 53.1
Phenol-d5	0.0194	0.0183	mg/L	1.02	0.08	24	23	10 - 36.9
Nitrobenzene-d5	0.0450	0.0403	mg/L	1.02	0.08	56	50	23.8 - 108
2-Fluorobiphenyl	0.0445	0.0387	mg/L	1.02	0.08	56	48	15.9 - 127
2,4,6-Tribromophenol	0.0653	0.0583	mg/L	1.02	0.08	82	73	10 - 123
Terphenyl-d14	0.0522	0.0450	mg/L	1.02	0.08	65	56	17.2 - 160

**Matrix Spike (MS-1)** Spiked Sample: 208665QC Batch: 63291  
Prep Batch: 54023Date Analyzed: 2009-09-02  
QC Preparation: 2009-09-02Analyzed By: AH  
Prepared By: AH<sup>22</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.<sup>23</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.<sup>24</sup>MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.<sup>25</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Kjeldahl Nitrogen - N	33.9	mg/L	1	50.0	4.48	59	61.2 - 118

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Kjeldahl Nitrogen - N	38.1	mg/L	1	50.0	4.48	67	61.2 - 118	12	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Matrix Spike (MS-1) Spiked Sample: 208408

QC Batch: 63340  
Prep Batch: 54065

Date Analyzed: 2009-09-08  
QC Preparation: 2009-09-08

Analyzed By: KV  
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Organic Carbon	51.2	mg/L	1	50.0	1.66	99	66.9 - 121

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Organic Carbon	48.4	mg/L	1	50.0	1.66	93	66.9 - 121	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Matrix Spike (MS-1) Spiked Sample: 208408

QC Batch: 63355  
Prep Batch: 53951

Date Analyzed: 2009-09-09  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Calcium	574	mg/L	1	50.0	531	86	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Calcium	576	mg/L	1	50.0	531	90	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Matrix Spike (MS-1) Spiked Sample: 208408

QC Batch: 63355  
Prep Batch: 53951

Date Analyzed: 2009-09-09  
QC Preparation: 2009-09-03

Analyzed By: RR  
Prepared By: KV

<sup>26</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Potassium	150	mg/L	1	50.0	99.9	100	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Potassium	148	mg/L	1	50.0	99.9	96	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Matrix Spike (MS-1) Spiked Sample: 208408

QC Batch: 63355

Date Analyzed: 2009-09-09

Analyzed By: RR

Prep Batch: 53951

QC Preparation: 2009-09-03

Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Magnesium	471	mg/L	1	50.0	425	92	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Magnesium	472	mg/L	1	50.0	425	94	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Matrix Spike (MS-1) Spiked Sample: 208408

QC Batch: 63355

Date Analyzed: 2009-09-09

Analyzed By: RR

Prep Batch: 53951

QC Preparation: 2009-09-03

Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Sodium	768	mg/L	1	50.0	717	102	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Sodium	776	mg/L	1	50.0	717	118	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Matrix Spike (MS-1) Spiked Sample: 208408

QC Batch: 63461

Date Analyzed: 2009-09-11

Analyzed By: RR

Prep Batch: 54153

QC Preparation: 2009-09-11

Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Chromium	0.110	mg/L	1	0.100	0.014	96	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Chromium	0.112	mg/L	1	0.100	0.014	98	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Matrix Spike (MS-1) Spiked Sample: 208427

QC Batch: 63485

Date Analyzed: 2009-09-11

Analyzed By: KV

Prep Batch: 54188

QC Preparation: 2009-09-11

Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate and Nitrite as N <sup>27</sup>	19.2	mg/L	200	0.200	14.5	2350	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Nitrate and Nitrite as N <sup>28</sup>	18.7	mg/L	200	0.200	14.5	9350	80 - 120	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Standard (CCV-1)

QC Batch: 63015

Date Analyzed: 2009-08-27

Analyzed By: MD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hexavalent Chromium		mg/L	0.500	0.501	100	90 - 110	2009-08-27

#### Standard (CCV-2)

QC Batch: 63015

Date Analyzed: 2009-08-27

Analyzed By: MD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hexavalent Chromium		mg/L	0.500	0.497	99	90 - 110	2009-08-27

<sup>27</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

<sup>28</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

**Standard (CCV-1)**

QC Batch: 63025

Date Analyzed: 2009-08-28

Analyzed By: ER

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.957	96	80 - 120	2009-08-28

**Standard (CCV-2)**

QC Batch: 63025

Date Analyzed: 2009-08-28

Analyzed By: ER

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.928	93	80 - 120	2009-08-28

**Standard (CCV-1)**

QC Batch: 63042

Date Analyzed: 2009-08-28

Analyzed By:

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/L	250	300	120	80 - 120	2009-08-28

**Standard (CCV-2)**

QC Batch: 63042

Date Analyzed: 2009-08-28

Analyzed By:

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/L	250	290	116	80 - 120	2009-08-28

**Standard (ICV-1)**

QC Batch: 63072

Date Analyzed: 2009-08-31

Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00100	0.00102	102	90 - 110	2009-08-31

**Standard (CCV-1)**

QC Batch: 63072

Date Analyzed: 2009-08-31

Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00100	0.000950	95	90 - 110	2009-08-31

**Standard (ICV-1)**

QC Batch: 63080

Date Analyzed: 2009-08-31

Analyzed By: AH

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cyanide		mg/L	0.120	0.117	98	85 - 115	2009-08-31

**Standard (CCV-1)**

QC Batch: 63080

Date Analyzed: 2009-08-31

Analyzed By: AH

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cyanide		mg/L	0.120	0.120	100	85 - 115	2009-08-31

**Standard (ICV-1)**

QC Batch: 63082

Date Analyzed: 2009-08-27

Analyzed By: JG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7.00	7.00	100	98 - 102	2009-08-27

**Standard (CCV-1)**

QC Batch: 63082

Date Analyzed: 2009-08-27

Analyzed By: JG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7.00	7.00	100	98 - 102	2009-08-27

**Standard (ICV-1)**

QC Batch: 63111

Date Analyzed: 2009-08-31

Analyzed By: AH

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Ammonia-N		mg/L	5.00	4.82	96	85 - 115	2009-08-31

**Standard (CCV-1)**

QC Batch: 63111

Date Analyzed: 2009-08-31

Analyzed By: AH

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Ammonia-N		mg/L	5.00	4.79	96	85 - 115	2009-08-31

**Standard (ICV-1)**

QC Batch: 63142

Date Analyzed: 2009-09-01

Analyzed By: DS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
HMX		µg/L	500	533	107	85 - 115	2009-09-01
RDX		µg/L	500	487	97	85 - 115	2009-09-01
1,3,5-Trinitrobenzene		µg/L	500	503	101	85 - 115	2009-09-01
1,3-Dinitrobenzene		µg/L	500	491	98	85 - 115	2009-09-01
Nitrobenzene		µg/L	500	515	103	85 - 115	2009-09-01
Tetryl		µg/L	500	501	100	85 - 115	2009-09-01
TNT		µg/L	500	498	100	85 - 115	2009-09-01
4-Amino-DNT		µg/L	500	497	99	85 - 115	2009-09-01
2-Amino-DNT		µg/L	500	529	106	85 - 115	2009-09-01
2,6-DNT		µg/L	500	440	88	85 - 115	2009-09-01
2,4-DNT		µg/L	500	525	105	85 - 115	2009-09-01
2-NT		µg/L	500	480	96	85 - 115	2009-09-01
4-NT		µg/L	500	493	99	85 - 115	2009-09-01
3-NT		µg/L	500	506	101	85 - 115	2009-09-01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
1,2-Dinitrobenzene		494	µg/L	1	500	99	85 - 115

**Standard (CCV-1)**

QC Batch: 63142

Date Analyzed: 2009-09-01

Analyzed By: DS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
HMX		µg/L	500	502	100	85 - 115	2009-09-01
RDX		µg/L	500	499	100	85 - 115	2009-09-01

*continued ...*



*standard continued ...*

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
1,3,5-Trinitrobenzene		µg/L	500	500	100	85 - 115	2009-09-01
1,3-Dinitrobenzene		µg/L	500	507	101	85 - 115	2009-09-01
Nitrobenzene		µg/L	500	542	108	85 - 115	2009-09-01
Tetryl		µg/L	500	495	99	85 - 115	2009-09-01
TNT		µg/L	500	534	107	85 - 115	2009-09-01
4-Amino-DNT		µg/L	500	553	111	85 - 115	2009-09-01
2-Amino-DNT		µg/L	500	538	108	85 - 115	2009-09-01
2,6-DNT		µg/L	500	461	92	85 - 115	2009-09-01
2,4-DNT		µg/L	500	557	111	85 - 115	2009-09-01
2-NT		µg/L	500	516	103	85 - 115	2009-09-01
4-NT		µg/L	500	515	103	85 - 115	2009-09-01
3-NT		µg/L	500	550	110	85 - 115	2009-09-01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
1,2-Dinitrobenzene		515	µg/L	1	500	103	85 - 115

**Standard (ICV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.250	0.253	101	90 - 110	2009-09-03

**Standard (ICV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Aluminum		mg/L	1.00	1.01	101	90 - 110	2009-09-03

**Standard (ICV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Arsenic		mg/L	2.00	2.02	101	90 - 110	2009-09-03

**Standard (ICV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Barium		mg/L	1.00	1.02	102	90 - 110	2009-09-03

**Standard (ICV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Beryllium		mg/L	1.00	1.02	102	90 - 110	2009-09-03

**Standard (ICV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cadmium		mg/L	1.00	1.04	104	90 - 110	2009-09-03

**Standard (ICV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cobalt		mg/L	1.00	0.992	99	90 - 110	2009-09-03

**Standard (ICV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Chromium		mg/L	1.00	1.04	104	90 - 110	2009-09-03

**Standard (ICV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Copper		mg/L	1.00	1.05	105	90 - 110	2009-09-03

**Standard (ICV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron		mg/L	1.00	1.04	104	90 - 110	2009-09-03

**Standard (ICV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Manganese		mg/L	1.00	1.01	101	90 - 110	2009-09-03

**Standard (ICV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Molybdenum		mg/L	1.00	0.992	99	90 - 110	2009-09-03

**Standard (ICV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Nickel		mg/L	1.00	0.999	100	90 - 110	2009-09-03

**Standard (ICV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Phosphorous		mg/L	5.00	4.93	99	90 - 110	2009-09-03

**Standard (ICV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Lead		mg/L	2.00	2.06	103	90 - 110	2009-09-03

**Standard (ICV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Antimony		mg/L	2.00	2.04	102	90 - 110	2009-09-03

**Standard (ICV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Selenium		mg/L	1.00	1.02	102	90 - 110	2009-09-03

**Standard (ICV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Thallium		mg/L	5.00	5.10	102	90 - 110	2009-09-03

**Standard (ICV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Vanadium		mg/L	1.00	1.04	104	90 - 110	2009-09-03

**Standard (ICV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Zinc		mg/L	1.00	1.08	108	90 - 110	2009-09-03

**Standard (CCV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.125	0.129	103	90 - 110	2009-09-03

**Standard (CCV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Aluminum		mg/L	1.00	0.993	99	90 - 110	2009-09-03

**Standard (CCV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Arsenic		mg/L	1.00	0.981	98	90 - 110	2009-09-03

**Standard (CCV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Barium		mg/L	1.00	1.04	104	90 - 110	2009-09-03

**Standard (CCV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Beryllium		mg/L	1.00	1.00	100	90 - 110	2009-09-03

**Standard (CCV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cadmium		mg/L	1.00	1.01	101	90 - 110	2009-09-03

**Standard (CCV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cobalt		mg/L	1.00	0.989	99	90 - 110	2009-09-03

**Standard (CCV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Chromium		mg/L	1.00	1.02	102	90 - 110	2009-09-03

**Standard (CCV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Copper		mg/L	1.00	1.04	104	90 - 110	2009-09-03

**Standard (CCV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron		mg/L	1.00	1.02	102	90 - 110	2009-09-03

**Standard (CCV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Manganese		mg/L	1.00	0.996	100	90 - 110	2009-09-03

**Standard (CCV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Molybdenum		mg/L	1.00	0.985	98	90 - 110	2009-09-03

**Standard (CCV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Nickel		mg/L	1.00	0.973	97	90 - 110	2009-09-03

**Standard (CCV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Phosphorous		mg/L	5.00	4.84	97	90 - 110	2009-09-03

**Standard (CCV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Lead		mg/L	1.00	0.966	97	90 - 110	2009-09-03

**Standard (CCV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Antimony		mg/L	1.00	1.00	100	90 - 110	2009-09-03

**Standard (CCV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Selenium		mg/L	1.00	0.983	98	90 - 110	2009-09-03

**Standard (CCV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Thallium		mg/L	1.00	1.00	100	90 - 110	2009-09-03

**Standard (CCV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR



Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Vanadium		mg/L	1.00	1.04	104	90 - 110	2009-09-03

**Standard (CCV-1)**

QC Batch: 63221

Date Analyzed: 2009-09-03

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Zinc		mg/L	1.00	1.03	103	90 - 110	2009-09-03

**Standard (CCV-1)**

QC Batch: 63249

Date Analyzed: 2009-08-31

Analyzed By: SS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Bromide		mg/L	5.00	5.05	101	90 - 110	2009-08-31

**Standard (CCV-1)**

QC Batch: 63249

Date Analyzed: 2009-08-31

Analyzed By: SS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	25.0	23.7	95	90 - 110	2009-08-31

**Standard (CCV-1)**

QC Batch: 63249

Date Analyzed: 2009-08-31

Analyzed By: SS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Fluoride		mg/L	5.00	5.33	107	90 - 110	2009-08-31

**Standard (CCV-1)**

QC Batch: 63249

Date Analyzed: 2009-08-31

Analyzed By: SS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	25.0	24.7	99	90 - 110	2009-08-31

**Standard (CCV-2)**

QC Batch: 63249

Date Analyzed: 2009-08-31

Analyzed By: SS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Bromide		mg/L	5.00	5.04	101	90 - 110	2009-08-31

**Standard (CCV-2)**

QC Batch: 63249

Date Analyzed: 2009-08-31

Analyzed By: SS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	25.0	23.9	96	90 - 110	2009-08-31

**Standard (CCV-2)**

QC Batch: 63249

Date Analyzed: 2009-08-31

Analyzed By: SS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Fluoride		mg/L	5.00	5.38	108	90 - 110	2009-08-31

**Standard (CCV-2)**

QC Batch: 63249

Date Analyzed: 2009-08-31

Analyzed By: SS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	25.0	24.3	97	90 - 110	2009-08-31

**Standard (CCV-1)**

QC Batch: 63261

Date Analyzed: 2009-09-04

Analyzed By: MN

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Phenol		mg/L	60.0	55.1	92	80 - 120	2009-09-04
1,4-Dichlorobenzene (para)		mg/L	60.0	59.4	99	80 - 120	2009-09-04
2-Nitrophenol		mg/L	60.0	65.0	108	80 - 120	2009-09-04
2,4-Dichlorophenol		mg/L	60.0	67.4	112	80 - 120	2009-09-04
Hexachlorobutadiene		mg/L	60.0	61.7	103	80 - 120	2009-09-04
4-Chloro-3-methylphenol	<sup>29</sup>	mg/L	60.0	73.5	122	80 - 120	2009-09-04
2,4,6-Trichlorophenol		mg/L	60.0	63.5	106	80 - 120	2009-09-04
Acenaphthene		mg/L	60.0	60.2	100	80 - 120	2009-09-04
Diphenylamine		mg/L	60.0	60.4	101	80 - 120	2009-09-04
Pentachlorophenol		mg/L	60.0	58.4	97	80 - 120	2009-09-04
Fluoranthene		mg/L	60.0	59.8	100	80 - 120	2009-09-04
Di-n-octylphthalate		mg/L	60.0	63.6	106	80 - 120	2009-09-04
Benzo(a)pyrene		mg/L	60.0	62.7	104	80 - 120	2009-09-04

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
2-Fluorophenol		61.7	mg/L	1	60.0	103	80 - 120
Phenol-d5		56.5	mg/L	1	60.0	94	80 - 120
Nitrobenzene-d5		58.2	mg/L	1	60.0	97	80 - 120
2-Fluorobiphenyl		58.2	mg/L	1	60.0	97	80 - 120
2,4,6-Tribromophenol		70.7	mg/L	1	60.0	118	80 - 120
Terphenyl-d14		57.7	mg/L	1	60.0	96	80 - 120

**Standard (ICV-1)**

QC Batch: 63272

Date Analyzed: 2009-09-01

Analyzed By: MD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	980	98	90 - 110	2009-09-01

**Standard (CCV-1)**

QC Batch: 63272

Date Analyzed: 2009-09-01

Analyzed By: MD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1010	101	90 - 110	2009-09-01

**Standard (ICV-1)**

QC Batch: 63291

Date Analyzed: 2009-09-02

Analyzed By: AH

<sup>29</sup>Control analyte out of CCV control limits. Results biased high. •

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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		mg/L	5.00	4.96	99	85 - 115	2009-09-02

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**Standard (CCV-1)**

QC Batch: 63291

Date Analyzed: 2009-09-02

Analyzed By: AH

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Kjeldahl Nitrogen - N		mg/L	5.00	4.87	97	85 - 115	2009-09-02

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**Standard (CCV-1)**

QC Batch: 63340

Date Analyzed: 2009-09-08

Analyzed By: KV

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Organic Carbon		mg/L	50.0	49.3	99	80 - 120	2009-09-08

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**Standard (CCV-2)**

QC Batch: 63340

Date Analyzed: 2009-09-08

Analyzed By: KV

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Organic Carbon		mg/L	50.0	49.8	100	80 - 120	2009-09-08

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**Standard (ICV-1)**

QC Batch: 63355

Date Analyzed: 2009-09-09

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Calcium		mg/L	50.0	51.5	103	90 - 110	2009-09-09

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**Standard (ICV-1)**

QC Batch: 63355

Date Analyzed: 2009-09-09

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Potassium		mg/L	50.0	50.8	102	90 - 110	2009-09-09

**Standard (ICV-1)**

QC Batch: 63355

Date Analyzed: 2009-09-09

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Magnesium		mg/L	50.0	51.0	102	90 - 110	2009-09-09

**Standard (ICV-1)**

QC Batch: 63355

Date Analyzed: 2009-09-09

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Sodium		mg/L	50.0	50.6	101	90 - 110	2009-09-09

**Standard (CCV-1)**

QC Batch: 63355

Date Analyzed: 2009-09-09

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Calcium		mg/L	50.0	51.1	102	90 - 110	2009-09-09

**Standard (CCV-1)**

QC Batch: 63355

Date Analyzed: 2009-09-09

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Potassium		mg/L	50.0	51.1	102	90 - 110	2009-09-09

**Standard (CCV-1)**

QC Batch: 63355

Date Analyzed: 2009-09-09

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Magnesium		mg/L	50.0	50.4	101	90 - 110	2009-09-09

**Standard (CCV-1)**

QC Batch: 63355

Date Analyzed: 2009-09-09

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Sodium		mg/L	50.0	50.1	100	90 - 110	2009-09-09

**Standard (ICV-1)**

QC Batch: 63379

Date Analyzed: 2009-09-08

Analyzed By: JG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		90 - 110	2009-09-08
Carbonate Alkalinity		mg/L as CaCo3	0.00	240		90 - 110	2009-09-08
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	8.00		90 - 110	2009-09-08
Total Alkalinity		mg/L as CaCo3	250	248	99	90 - 110	2009-09-08

**Standard (CCV-1)**

QC Batch: 63379

Date Analyzed: 2009-09-08

Analyzed By: JG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		90 - 110	2009-09-08
Carbonate Alkalinity		mg/L as CaCo3	0.00	240		90 - 110	2009-09-08
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	10.0		90 - 110	2009-09-08
Total Alkalinity		mg/L as CaCo3	250	250	100	90 - 110	2009-09-08

**Standard (ICV-1)**

QC Batch: 63461

Date Analyzed: 2009-09-11

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Chromium		mg/L	1.00	1.03	103	90 - 110	2009-09-11

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**Standard (CCV-1)**

QC Batch: 63461

Date Analyzed: 2009-09-11

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Chromium		mg/L	1.00	1.02	102	90 - 110	2009-09-11

**Standard (ICV-1)**

QC Batch: 63485

Date Analyzed: 2009-09-11

Analyzed By: KV

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate and Nitrite as N		mg/L	0.200	0.188	94	85 - 115	2009-09-11

**Standard (CCV-1)**

QC Batch: 63485

Date Analyzed: 2009-09-11

Analyzed By: KV

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate and Nitrite as N		mg/L	0.200	0.201	100	85 - 115	2009-09-11

# CHAIN OF CUSTODY RECORD

146

PAGE 1 OF 2

PROJECT NO.		PROJECT NAME		NO. OF CONTAINERS		ANALYSES REQUESTED								REMARKS	
DATE	TIME	SAMPLE ID	MATRIX	LAB NO.	VOG	DRO	GRO	TOC	SVOC	Explosives	TRPH	Water Quality	Total Cyanide		Nutrients
8-26-09	0955	HLSF-0143-HW01-037-0809	WATER	208427	18	X	X	X	X	X	X	X	X	X	
<p>SAMPLE'S SIGNATURE: <i>[Signature]</i></p>															
<p>PROJECT INFORMATION</p> <p>PROJECT NUMBER: Brad Davis</p> <p>SHIPPING ID NO.:</p> <p>DATE: 8-26-09</p> <p>TIME: 0955</p>															
<p>SAMPLES RECEIVED</p> <p>TOTAL NO. OF CONTAINERS:</p> <p>CHAIN OF CUSTODY SEALS:</p> <p>GOOD CONDITIONING FILLED:</p> <p>CONFORMS TO RECORD:</p>				<p>1. RECEIVED BY (SIGNATURE): <i>[Signature]</i></p> <p>2. RECEIVED BY (SIGNATURE): <i>[Signature]</i></p> <p>3. RECEIVED BY (SIGNATURE): <i>[Signature]</i></p>				<p>4. RECEIVED BY (SIGNATURE): <i>[Signature]</i></p> <p>5. RECEIVED BY (SIGNATURE): <i>[Signature]</i></p>				<p>6. RECEIVED BY (SIGNATURE): <i>[Signature]</i></p> <p>7. RECEIVED BY (SIGNATURE): <i>[Signature]</i></p>			
<p>Lab Courier</p>				<p>Special Instructions/Comments: LS 43035695, 696</p>				<p>PLEASE SEE ATTACHED ANALYTE LIST FOR DETAILS</p>				<p>DISTRIBUTION: WHITE - PROJECT FILES, YELLOW - LAB - PINK - FIELD COPY</p>			



# CHAIN OF CUSTODY RECORD

PAGE 2 OF 2

PROJECT NO.		PROJECT NAME		NO. OF CONTAINERS		ANALYSIS REQUESTED				REMARKS
SAMPLER'S SIGNATURE		HELSF Chromate Spill Groundwater				Total Metals	Diss. Metals	Diss. Ions		
DATE	TIME	SAMPLE ID	ANALYST	LAB NO.						
8-26-09	0955	HLSE-0143-HRM00-037-0009	WATER	20842718	X	X	X			
1. RECEIVED BY (SIGNATURE) <i>[Signature]</i> (PRINTED NAME) <i>Carol Fox</i> RECEIVED BY (SIGNATURE) <i>[Signature]</i> (PRINTED NAME) <i>Carol Fox</i> RECEIVED BY (SIGNATURE) <i>[Signature]</i> (PRINTED NAME) <i>Trace-Lor</i> (TIME/DATE) <i>8-28-09 9:25 AM</i>										
2. RECEIVED BY (SIGNATURE) <i>[Signature]</i> (PRINTED NAME) <i>James C. [unclear]</i> RECEIVED BY (SIGNATURE) <i>[Signature]</i> (PRINTED NAME) <i>MR [unclear]</i> (TIME/DATE) <i>9/48 8/27/09</i>										
3. RECEIVED BY (SIGNATURE) <i>[Signature]</i> (PRINTED NAME) <i>LS 43635695, 696</i> RECEIVED BY (SIGNATURE) <i>[Signature]</i> (PRINTED NAME) <i>LS 43635695, 696</i> (TIME/DATE) <i>8/26/09</i>										
SPECIAL INSTRUCTIONS/COMMENTS: <i>PLEASE SEE ATTACHED ANALYTE LIST FOR DETAILS</i>										
PROJECT INFORMATION		SAMPLER'S SIGNATURE		TOTAL NO. OF CONTAINERS		CHAIN OF CUSTODY-SEALS		GOOD CONDITION/HILLED		
PROJECT NAME/NUMBER		TOTAL NO. OF CONTAINERS		CHAIN OF CUSTODY-SEALS		GOOD CONDITION/HILLED		CONFORMS TO RECORD		
Brad Davis		TOTAL NO. OF CONTAINERS		CHAIN OF CUSTODY-SEALS		GOOD CONDITION/HILLED		CONFORMS TO RECORD		
SHIPPING ID NO.		TOTAL NO. OF CONTAINERS		CHAIN OF CUSTODY-SEALS		GOOD CONDITION/HILLED		CONFORMS TO RECORD		
Lab Courier		TOTAL NO. OF CONTAINERS		CHAIN OF CUSTODY-SEALS		GOOD CONDITION/HILLED		CONFORMS TO RECORD		